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No. 8.

American Apples Abroad

By John F. Deegan

FEW PEOPLE are aware that the business of exporting American apples to foreign countries runs into millions of barrels and boxes and millions of dollars annually. Our apple production is considerably in excess of present American consumption. This creates a surplus. What happens to the surplus? It must be disposed of. Surplus breaks markets and creates ruinous price levels. The long keeping quality of apples furnishes the solution to the problem. The surplus is exported to all parts of the world. Without a foreign outlet for this surplus, American apple producers would face disastrous consequences.

Western Europe, notably Great Britain, Germany, Holland, Belgium and Scandinavia, are the largest foreign receivers of American apples. A considerable quantity finds its outlet in South American countries, such as Brazil, Argentine and Uruguay. Cuba takes many thousands of boxes and barrels annually. Even far-off South Africa calls for carload shipments. A fair business has been developed in recent years with China and other far-eastern countries; and steamers from New York to Egypt carry regular shipments.

American Apples Superior to European

The consumptive possibilities of foreign countries vary from year to year. Economic conditions—buying power—have a vital bearing on demand for American apples. A still greater factor is the size of the home-grown apple or fruit crop in each foreign country.

European orchardists do no go in for large scale, commercial apple growing as we know the industry in this country. Nevertheless, there are a few million apple trees scattered around the back yards and by-ways of European countries. The general quality of European grown apples is inferior to the American product. Scientific measures for fostering growth and quality are not generally employed. For the most part, their apple trees, like Topsy, just grew. Packing, grading and sizing methods are relatively crude. Much of the fruit is shipped to market in bulk by large canal boats. Cold storages are not used to any extent. The home-grown European crops are therefore largely out of the way by the first of the year. Thereafter the American apples have a fairly free field and even prior to that time are in demand for such trade as desires better fruit. Still, in a year of heavy yield in Europe, the opportunities for selling American apples are reduced; but in no year is the European production sufficient to entirely shut out American apples from foreign markets.

This Season Surpasses Any Previous Year

The season just closed has proved

a record-breaker with respect to volume exported to foreign countries. Never before in the history of the industry have such large quantities left our shores as marked the season of 1926-27.

The world market of world production of fruit this past year worked most favorably for the American apple producer. In our country, we had a bumper crop. Without a heavy foreign demand, much of our fruit could never have been picked or packed. But fortunately for our growers, the foreign "breaks" all worked in their favor. First of all, economic conditions in many European countries were improved over the year before.

Then the fruit crops of Europe were generally light, in many districts a failure. The Valencia district of Spain, which supplies oranges to all Europe, suffered a serious freeze in January. This curtailed shipments of oranges and created a greater demand for apples. South Africa produces a large crop of deciduous fruits in the winter—plums, peaches, grapes, etc.—and this fruit is largely shipped to England and continental countries. This year a heavy drought in South Africa reduced shipments, thereby lessening the competition which American apples ordinarily suffer from that source. And finally, the Australian apple crop was comparatively light this

year. Australian apples first appear in the European markets in the spring and generally shut off further exports of apples from America; but with lighter arrivals of Australian apples this year, it has been possible to continue shipments of apples from America to Europe right up to the first of June—a condition heretofore unknown.

Some Amazing Figures

The tremendous importance of the foreign markets for American apples may best be illustrated by some figures on shipments.

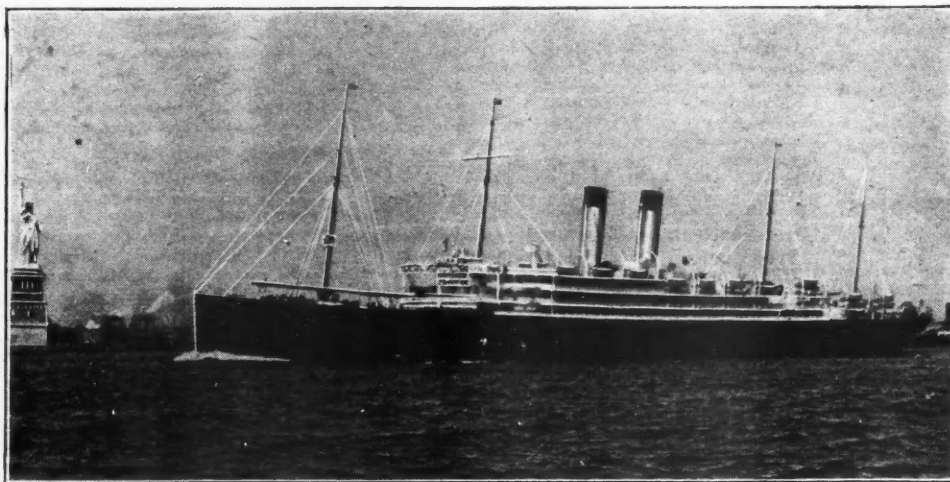
Up to May 7 this season, the total exports of American apples amounted to 5,004,799 barrels and 7,515,849 boxes. This represents an increase over the previous season of 2,111,063 barrels and 2,467,863 boxes.

Fruit statisticians, in computing the country's total apple production in any one year, translate all figures into terms of barrels. Three boxes to one barrel is the basis used. Figured in terms of barrels, the total apple exports from America this season amounted to 7,482,246 barrels. When we consider that this quantity is roughly one quarter of the total American production, it may be seen at a glance how vitally important these foreign markets are to our American apple producers. If apples carried no better than peaches or watermelons, and therefore could not be exported freely, the American apple production would have to be considerably curtailed to avoid surplus and broken markets.

Great Britain consumes more American apples than any other foreign country. Liverpool, conveniently situated to supply all of middle England, wherein lie the great manufacturing and coal mining centers, is the world's largest port of entry for American apples. The total imports into Liverpool this season amounted to 1,504,750 barrels and 1,257,429 boxes of apples. In the week ending October 30 last fall, Liverpool received 88,848 barrels and 153,305 boxes. On the steamer Baltic sailing from New York to Liverpool on February 5, there were loaded 36,494 barrels of apples, mostly from Virginia, Pennsylvania and New York state. Reduced to carloads of 160 barrels, this quantity represented 228 carloads.

South America Important Outlet

The South American outlet is by no means a small one, although taking smaller quantities than Europe. Argentine and Uruguay received from America this season 150,082 boxes and 122,432 barrels of apples, besides 41,256 boxes of pears. Brazil took a quantity approximately equal to that taken by Argentine and Uruguay. The steamship Vestris, sailing from New York to South American ports on October 16 last fall, carried 35,935 boxes and (Continued on page 12)



The S. S. Baltic of the White Star Line. It carried 36,494 barrels or 228 carloads of apples on one trip from New York to Europe last season. This was the largest quantity of apples carried on one boat from New York last season.

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An Experience in Marketing Peaches

By Ben E. Niles

HENDERSON COUNTY has for a number of years been recognized as the largest apple producing county in Kentucky, but it was only a couple of years ago that the first car of peaches was shipped from the county. Some 20 years ago when an unusually heavy crop of peaches was produced in this section, a few cars were shipped out, but at that time there were no orchards of more than three or four acres each.

Commercial Planting Taking Place

Within the past five years, a considerable acreage has been planted to peaches, mainly of the Elberta variety. Some of these recently planted orchards have a few hundred trees of such varieties as Alton, Hiley and Belle of Georgia.

Most of those who now have such acreage as would place them in the class of commercial growers, have until the past year been selling to local dealers and individual consumers. In other words, they have been in the "peddling" class rather than in the commercial class. The heavy crop of 1926 moved several growers from the local or peddling class into the shipping or commercial class before they were aware of the change having been made.

Henderson, the county seat of Henderson county, is a town of 15,000 population, located about 12 miles below Evansville, Ind., a city of approximately 80,000, and about 30 miles from Owensboro, Ky., a town of 20,000 population, farther up the Ohio River.

Producers of fruit in the Henderson district have had in the past a population of something over 150,000 people right at their doors to whom they could easily and profitably sell the fruit they grew. Last year, however, with many young orchards coming into bearing, many growers did not realize that instead of there being 10 to 20 cars of peaches to be disposed of, there was within their local trade territory well onto 100 cars—not a large number when considered from the standpoint of a shipping proposition, but a quantity far in excess of the usual local demand.

Peaches Too Ripe to Ship

A number of small growers, not

being acquainted with the handling of peaches and not having made advance arrangements for marketing their fruit, suddenly awoke to find the crop about ready for consumption. Thus they could not have shipped the fruit to distant markets because of its over-ripeness even if connections had already been made, and furthermore, the quantity of fruit in many cases was too great to be sold locally under the conditions of normal and usual demand.

One morning in August the writer visited the orchard of W. B. Floyd, who had some 600 bushels of Hileys, quite ripe, with possibly as many or more Belle of Georgias, that were too ripe for shipping. In fact, the marketing agent of the district advised him to forget that he had the Hileys and Belle of Georgias, and begin picking his Elbertas and put them in cars. This advice was very hard to accept, as the grower felt that he must get sufficient money out of these peaches to pay for their production at least.

He announced to several neighbors who had come to the orchard in their automobiles that they might have these peaches for 50 cents a bushel if they would gather them and furnish their own containers. Several people had begun picking when I arrived. It occurred to me that besides the price being very low for such splendid fruit, the running of these people over the orchard, gathering such fruit as they saw fit, and leaving the remainder, much of it probably knocked to the ground, would result in great loss to the owner; so I suggested that he put a bushel basket filled with fruit in my automobile, and I went back to town to see what I could do. In the meantime, he decided to stop the "pick-it-yourself" proposition and ask a price of \$1 a bushel in the orchard and the same price when the fruit was delivered in town.

When I got to town, I drove to the fire and police stations and other places where a number of people would likely be and at once began giving out the fruit I had with me. The reaction most every time was,

"What splendid fruit," "Never ate as good peaches in my life," "Where did they grow?" I informed them that Mr. Floyd had several hundred bushels just like them, which, owing to the unusually hot weather, had ripened sooner than he expected and as long as they lasted he was selling them at \$1 a bushel. With rarely an exception, orders were placed by those present for one or more bushels each, and when orders for 15 to 20 bushels had been secured, I drove to the orchard and turned them over to the manager, who immediately delivered the fruit in a small truck to the respective purchasers. Many of those approached in town had automobiles, and being anxious to see the orchard, drove out for their fruit, so that by noon a long line of cars was drawn up by the packing tent. As a result of the deliveries made by two small trucks and the sales to those coming to the orchard in their own cars, the entire lot of Hileys was sold by the following afternoon.

Fire Sale

Having sold this lot so quickly, the grower felt that to duplicate this effort and move the next lot in the order of its ripening, which was Belle of Georgia, some more comprehensive advertising must be brought into play, by which a wider circle of possible consumers might be reached. So he prepared and had published in the local papers advertising matter setting forth the fact that his "Fire Sale" of peaches would continue as long as the Belle of Georgias lasted. This advertising was patterned somewhat after the "conventional" fire sale ads of the retail merchant. The newspaper advertising, with publicity given the matter by individual buyers, resulted in a rapid and satisfactory sale of the variety ready for immediate use.

Entire Crop Sold Locally

At the beginning, Mr. Floyd had intended selling locally only his earlier ripening varieties, such as Mayflower, Carman, Hiley and Belle of Georgia, but having had such success in moving these so quickly at a price not

greatly out of line with prices received by shippers, and bearing in mind that he sold his fruit tree run and that the customers furnished their own packages, he decided to move his Elbertas and Hales the same way, that is, at the orchard and in the nearby towns.

By keeping the fact before the public that there would be ready at all times fine ripened-on-the-tree fruit, a constant stream of automobiles kept moving it from the orchard to the ultimate consumer throughout the season, and when the season closed everything had been sold for \$1 a bushel and better, with the exception of the few bushels of Hileys sold on the morning of the first sale.

Fifteen Thousand Bushels of Peaches Sold in a Town of 15,000 Population

This crop amounted to several thousands of bushels and probably constituted the largest individual crop sold through local channels, yet there were quite a number of growers who, by similar methods, sold many thousands of bushels to local consumers and at prices the consumer was glad to pay, with the result that people who were not in the habit of canning, put many bushels of peaches into cans for future use, thus paving the way for a repeat order this year, though the price may by reason of the smaller crop be higher.

From a rather careful survey of local sales made, it was pretty definitely determined that peaches to the extent of more than a bushel for every man, woman and child, were sold in the town of Henderson.

One Housewife Canned 200 Quarts

Toward the close of the season a local housewife was making an effort to secure a few peaches. She stated that she had canned 197 quarts and wanted enough to fill three quarts more so that she would have 200 quarts.

With the investment these housewives made for cans, and with the knowledge gained of the desirability of having a goodly supply of canned peaches on hand, is it not more than probable they are going to want those cans refilled, and will they not do this though the price of peaches is higher than last year? Is not one of the real

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Refined Apple Juice

By G. E. Prater

PEOPLE have been having difficulty with the apple proposition ever since the time of Adam and Eve. Careful investigation, however, discloses the fact that the apple referred to in that episode was not of the type which is giving the most trouble this season.

History repeats itself, and ever since Adam and Eve had that little necking party in the Garden, Adam and all his descendants have been carrying around what is called today, "Adam's Apple," which is doubtless a partial explanation of the universal thirst for pure apple juice.

The inexplicable part is that the ladies, who have not been compelled to carry a copy of this ancient flippity flop around in their throats forever, also have the pure apple juice appetite. This is probably due to their recent attitude toward manly things and their determination to do everything men do.

Everybody Likes Apple Juice

There are people who prefer this and others who prefer that, but who ever heard of a man or woman, boy or girl, who did not like pure apple juice? The appetite is born in them. Apple cider is nature's drink. Our problem as apple growers is to capitalize this natural condition by seeing that our apple crop is available to the public in this form all the year around.

Only recently have we been able to do this. Since time immemorial, we have had our cider mills, and the older

of us remember our childhood days when we looked forward to cider time, when we could go out and pick up the apples that had fallen during picking time and go with father to the cider mill, and when we could watch them grind and crush and press the fruit. Then, with the old tin dipper that hung on a post, we could catch the delicious juice and drink our fill.

Honestly, the stuff was so good that we forgot all about the wormy apples, those that had rotten spots, dirt, etc., which, in our haste, we had picked up and put right in. But then, we hardly ever got the juice from our own apples, anyway, so what's the difference?

Memory of Facts is Obstacle

Reader, it is just this memory of facts that has prevented apple juice from becoming the most popular soft drink on the market. This, coupled with nature's action, has until recent years confined the use of cider to a few short weeks in the fall season. Shipments could not be made safely, naturally or legally, without the use of chemicals, which ruined it for apple, juice or vinegar. Therefore, the city trade has not had even these few short weeks of apple juice pleasure.

Equipment is now available whereby the fruit is washed, crushed and pressed under the most sanitary conditions. The product is perfect from

every viewpoint of desirability, and the real beauty lies in the fact that it is pasteurized in its natural state, rendering pure, refined apple juice available and marketable at all times of the year.

To successfully market this product, we need no advertising campaign to convince the public that it is a desirable drink. We have only to convince them that it is clean and pure. This can best be done through marketing under a standard trade-mark in only such markets as can be supplied on an all-the-year-round basis.

Convince the public in a few markets that your product is a top-notch, and so long as you keep your standard at the top of the list, so that no other brand will excel it, you will have no reason to worry about your market. Slip in only one lot of inferior stock, and you will have to locate another market or change your brand.

Blending of Varieties Necessary for Best Results

The first thing to remember in making refined apple juice is that an apple which is not good to eat will not make good juice. Neither will any of our present varieties make a perfect juice when pressed alone. They may suit some tastes, but what you want is a middle-of-the-road product that will please all tastes. And this can be accomplished only by care-

fully testing blends of different varieties until the desired flavor is attained.

Fortunately, the bulk of the juice may be of some one variety, a small portion of juice of other varieties being used in blending to obtain the desired flavor. In making these blends, it is well to consider what you will have available for several years to come, then to perfect your blends from these varieties so that your product will be the same from year to year.

It would be best to submit a list of available varieties to someone familiar with blending and get his recommendations as to which ones and what proportions would bring about the desired results, keeping in mind that when once established, your blends should always be the same, or of similar varieties, combining the same chemical analysis.

Some Varieties Unsuitable for Cider

Don't get the idea that by going into the refined apple juice business, you will make a market for all your cider apples. Such is not the case. You will have many unsuitable varieties. And of your suitable varieties, it would be suicide to put in wormy apples or those which are immature, undeveloped, aphid injured or otherwise impaired in flavor.

Apples with imperfections like sound scab, limb rub, spray burn or blister, ill shape, undersize but ripe, stem checks, mechanical punctures, etc., which are free from decay, make

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The Spray Residue Problem

By John C. Burtner
Oregon State Agricultural College

JUST a year ago the great apple and pear industries of the Pacific Northwest were in a slough of despond so dark and deep as to make that of Bunyan's Pilgrim appear like a sparkling pool. With the biggest and best quality crop in history matured and ready for a fairly favorable market, the average grower saw what appeared to him a barrier rising suddenly and without reason to shut him from profitable returns so nearly in his grasp and so sorely needed.

This barrier was spray residue! "Spray residue?" questioned the bewildered average grower. "How can it be that spray, used by us for years as religiously as a man prays, now suddenly rises to ruin us?"

Today, just a year later, out of the turmoil and perhaps temporary wreckage of last year, the average grower begins to see coming a blessing then so terribly disguised. His fruit, proudly proclaimed the best in the world, is now to be "better than the best." No market, he says, need ever again even suspect the wholesomeness of Northwest fruit. It will be clean—mechanically and chemically cleaner than apples and pears have ever before been supplied the consumer.

The story of this year's transition from disaster to victory is a story of science in experiment stations marshalled in a crisis to aid agriculture, which in turn is organized to act as a unit; and a story of equipment manufacturers turning their inventive and productive energies suddenly toward a pressing problem and working at top speed to supply unforeseen needs of an industry in distress.

Rumblings Heard in Boston

Through the many years of development of an effective spray program, no serious question had ever been raised regarding the possible detrimental effects of the minute quantities of spray residue. Then some six years ago the city of Boston made some protest but nothing came of the matter. It was announced publicly that one person would have to eat a barrel of apples at one sitting, cores and all, before getting even a medicinal dose of any chemical.

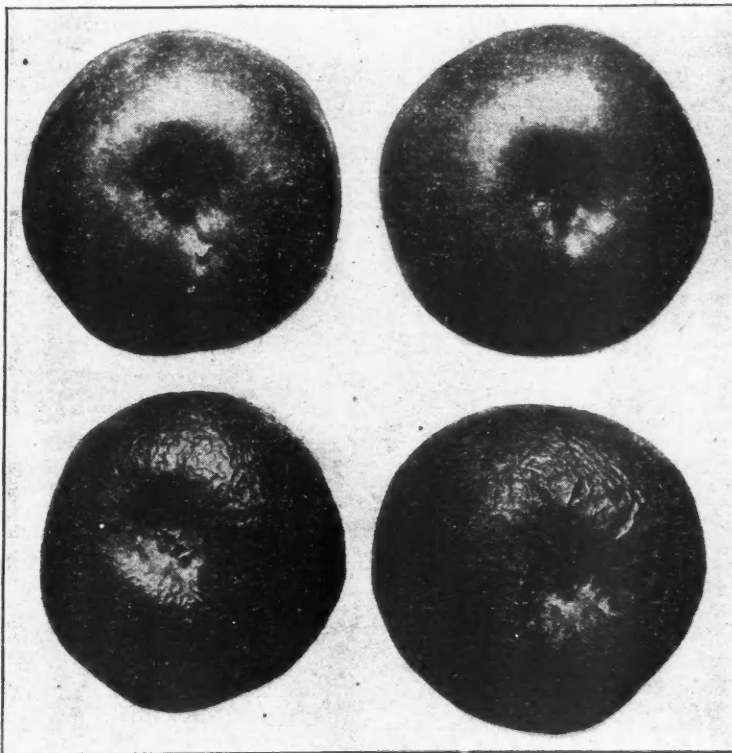
Nevertheless, in 1923, Washington, D. C., joined Boston in her stand, but nothing serious came of it. Then came the 1925 crop and its accompanying scare on the English market, which literally caused an uprising against any fruit being offered there which carried more spray residue than their established tolerance of 0.01 grain of arsenic per pound of fruit.

So serious did the situation become that the British government sent its minister of health, Sir George Buchanan, to Washington, D. C., to confer with government authorities over the marketing of the next crop. He was assured that the federal authorities would do all in their power to see that exports met the British requirements.

Chemistry Bureau Adds Warning

In March of last year, the Bureau of Chemistry of the United States Department of Agriculture issued a warning that all fruit for the domestic market must also be cleaned, though no definite tolerance was stated. This warning was relayed by the extension services in the states most interested,

Here the average grower was confronted with the anomalous situation of being told that he could not ship his fruit as it was, yet no one could tell him what more he could do to it! Medford, Ore., where their famous Bartlett pears mature early, was one of the first districts affected by the new order. It has since been in the



Wiping reduces the quality of the fruit. This picture shows four apples from the same tree, picked and stored at the same time. The upper two were left untouched while the lower two were hand wiped

though little recognition was given it, as it was generally believed even by shippers that ordinary wiping would remove all excess residue.

This was the condition existing up to the time of the pear harvest in August. Many of the larger packing plants had installed mechanical brushers or wipers, and smaller shippers had prepared to handle the situation through hand wiping. Imagine then the consternation when government inspectors, sent to the fruit districts to enforce the cleaning rules at shipping points, were forced to deny clearance to wiped fruit, as chemical analyses showed it still above their established tolerance.

forefront in the rapid move of events leading to a solution of the problem.

Experiment Station Takes Hand

Meanwhile, specialists at the Oregon Experiment Station sensed the seriousness of the approaching situation at the first announcement of the Bureau of Chemistry and began investigation at once. Station chemists reported at once that preliminary tests showed wiping to be ineffective in removing spray residue to the required tolerance.

Intensive tests were then begun with liquid solvents to determine whether a washing process would prove practical. Even as early as

April, 1926, it had been determined that hydrochloric acid in very dilute form and one or two other substances gave promise. No public announcement was made, however, as no process had been perfected in any sense.

With harvest in full swing and growers face to face with a stone-wall situation, two definite moves were made. First, a committee of three was appointed to go to Washington, D. C., and obtain if possible some degree of leniency for the 1926 season. On this committee were Otis Booth, a prominent fruit grower of the Medford section, James T. Jardine, director of the Oregon Experiment Station, and F. C. Reimer, superintendent of the Southern Oregon Branch Experiment Station near Medford.

Secondly, the experiment station staff concentrated every effort at Medford and other leading shipping points and there spent most of the remainder of the harvest season experimenting directly with the growers in adapting to field conditions what had thus far been worked out in the laboratory, and to continued investigations looking to improvement in methods.

Both moves were effective in part. The committee obtained concessions in keeping with the physical possibilities of the case, and the experiment station scientists, together with the growers, were able to set up crude equipment by use of which hundreds of cars of fruit were cleaned beyond possibility of protest. Thus, the season wore on to its close with the average grower hard hit for the present and full of misgivings regarding the future.

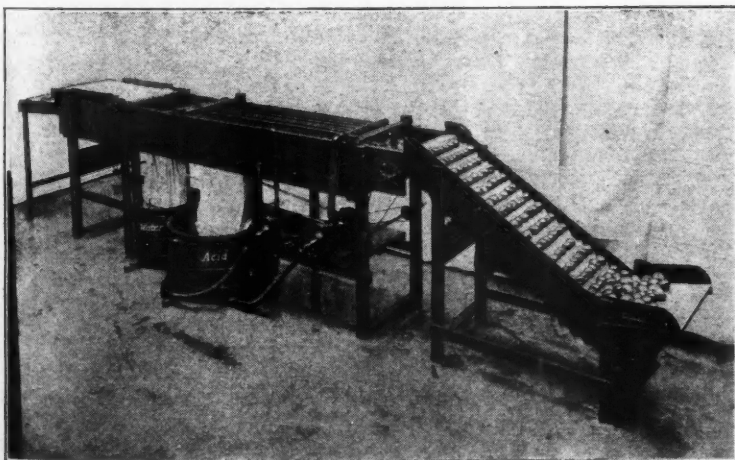
Experiments Continued

The close of the harvest season did not end the opportunity for field work, as the growers' organizations set aside 500 boxes of fruit to be used by the Oregon station in continuing experiments. In the laboratories, between 700 and 800 carefully controlled experiments in cleaning and packing were started, with parallel tests to determine the action of all treated fruit in storage. These were carried through with utmost dispatch compatible with thoroughness, in order to obtain facts upon which equipment companies might base their work in designing necessary machinery for handling the following year's crop.

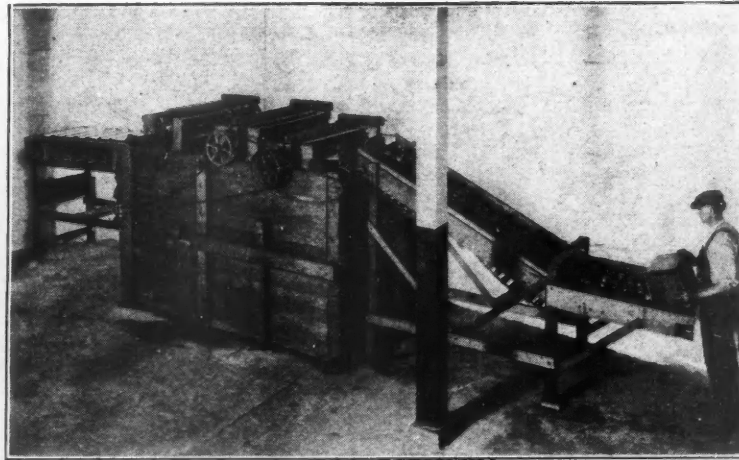
Late in February of this year, a meeting was held in Salt Lake City, Utah, attended by representatives of the western fruit industry and officials of government bureaus concerned at Washington. At this meeting, a complete understanding was reached as to handling the 1927 crop, and government officials were assured by the fruit men that all requirements would be met.

Experiments at the Oregon station had progressed by this time sufficiently so that a progress report in

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One of the many machines designed to overcome the spray residue problem. In this type, the fruit is cleaned by jets of acid from overhead pipes.



A submerged type of washer designed for use with disinfectants as well as residue solvents

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Institute of Co-operation Closes Successful Meeting

THE SUMMER MEETING of the American Institute of Co-operation, which closed at Chicago on July 16, was a highly successful affair. A good audience of intensely interested persons, representing practically every part of the country, was present throughout the four weeks' program.

The program consisted of regular credit courses given by recognized authorities, including such men as H. E. Erdman, Fred E. Clark, E. G. Norse, Paul L. Miller and J. T. Horner. In addition, general lectures were given every day by managers and officers of co-operative associations, officials of the Department of Agriculture and of numerous agricultural colleges, and other persons engaged in marketing activities.

The program was divided on a commodity basis this year. Most of the last week was devoted to fruit and vegetable subjects. The writer attended practically every session of this part of the course and was highly impressed with the character of the teachings. The information given out was intensely practical as well as sound from a theoretical standpoint. Visits to the Chicago auction market and the South Water market were a feature. Porter R. Taylor, director of the Bureau of Markets in Pennsylvania, arranged this part of the program and presided over the sessions. He and Charles W. Holman, secretary, and the various other persons who assisted them deserve great credit for their excellent work.

Such meetings as this are a real help to co-operative marketing. They give to our present and future leaders a good sound basis of understanding upon which to build. It is only on such a foundation that the movement can best prosper.

Marketing Apples Through Cider

G. E. PRAETER, speaking before the joint convention of the Michigan State Horticultural Society and the American Pomological Society, brought out a point in reference to apple cider which has great

merit, in our opinion. Mr. Praeter stated that if the apple growers of the country were to unite in a large way and put out under a master brand name a refined apple juice and work out a merchandising system which would keep the confectioneries of the country regularly supplied, they could establish a market that would take care of all the apples produced and thereby return the apple to its rightful position as the king of fruits.

This proposition deserves the most careful consideration by apple growers. The enormous sales of apple cider made in many roadside markets proves that a great potential market exists for apple cider. It is simply a question of developing a well balanced merchandising system to handle the matter.

Education Pays

NATION-WIDE SURVEY recently conducted in Wisconsin shows that the years spent in high school and college are well repaid by the increased earning power.

In Texas it was found that every day spent by a child in school is worth about \$9. The annual net profits of Georgia farmers without schooling averaged \$240, while those with common school education earned \$565. High school graduates earned \$664.50, and graduates of agricultural colleges earned \$1254 on the average. Those who had taken only a short course earned \$895.95, or about three times as much as those having no education at all.

In Indiana, Illinois, Iowa and Kansas, the men receiving the best training made the largest incomes. In Missouri, the better educated men own four-fifths of the land they operate, keep more livestock, grow more crops for each workman employed, and do about one-fifth more business.

Farmers with high school education became owners of their farms in about seven years, while it took 10 years for those with a common school education to acquire a clean title. Without exception, the study shows that the men with the greater training enjoy greater prosperity.

A Tariff Does Not Create Wealth

ALTHOUGH it is not generally known by the American public, practically every economist in the country believes better conditions would prevail if there were no tariffs. The only good argument for a tariff, they say, is the fact that we have one. Changes in tariff schedules should be made gradually, these experts claim, for a tariff is such a complicated proposition and is so far-reaching in its ramifications that sudden and revolutionary changes would doubtless have serious effects. For these reasons, many economists believe it best at present to apply the principles of the tariff to agriculture and to follow in the future a policy of gradual and general tariff reduction.

There is one feature of the tariff with reference to which many people have a mistaken viewpoint. It seems that many persons have the idea that the American tariff in some way creates wealth. They point to the fact that our country is operating under a high tariff system and that it is the wealthiest country in the world. They reason, therefore, that the tariff is responsible. Nothing can be further from the truth. A tariff does not create one cent of wealth. It is simply an economic artifice that affects the distribution of wealth and not the creation of it. Wealth cannot be created by the scratch of a pen or the vote of a legislative body. Its distribution, however, can be materially affected by such means.

A tariff has two important effects. It can take wealth from one or more groups within

a country and distribute it among other groups. That is what is taking place in the United States today with reference to agriculture. Our agriculture is being and has been exploited for the benefit of other groups. Wealth is being diverted from it to other groups of our citizens. Stated in another way, our tariff, as it is at present operating, is causing farmers to receive less than their due share of the national income, while other groups are permitted to receive more than their rightful share.

A tariff also has the effect of encouraging the production of a commodity in a country where conditions are not the most favorable for its production, and it tends also to discourage production of the same commodity in other countries where conditions are more favorable for its production. A tariff in one country tends also to unbalance the production of various commodities in other countries and to force them to produce commodities under more or less unfavorable conditions, no matter whether they desire to do so or not. Thus, from the standpoint of individual countries and from the standpoint of the world at large, a tariff encourages inefficiency.

When our tariff system was first established, the argument was used that a tariff was necessary during the period of infancy of certain industries in order to encourage and make possible their development. This argument was used particularly with reference to commodities which it was claimed would be needed by the country during time of war. However, the policy was gradually extended to include numerous other commodities. It seems that none of these industries has ever gotten beyond the stage of infancy, for the tariffs have been continued and, in fact, have gradually been raised instead of lowered in most cases.

So far as the tariff being responsible for our national prosperity and our high standard of living is concerned, there is absolutely no foundation for this viewpoint. Our country is great and prosperous because of its enormous resources, its rich soil and its intelligent, resourceful people, who demand a high standard of living. These things would make any country prosperous no matter whether or not it followed a high tariff policy.

Results from Veto Message Disappointing

THERE are numerous indications that the President's veto of the farm relief bill has not had the influence which those in power hoped it would. Apparently, many of them expected the veto message to kill farm relief so completely that its exponents would not dare raise their voices again. It is true, of course, that the weight of the President's prestige with many people caused them to give great consideration to what he said. Furthermore, immediately following the publication of the veto message, many of our great metropolitan dailies who had been supporting farm relief slowed up noticeably in their efforts.

However, now that people in general and farmers in particular have had time to digest the President's arguments and to consider them in the light of his raising of the tariff on pig iron to the highest point possible under the law, and other matters, the issue of farm relief is as much unsettled as it ever was. The papers are again beginning to assert themselves forcibly, and the farmers' organizations are more determined than ever; in fact, the inconsistencies of the President's arguments were so plainly evident to many farmers who had not definitely formed their opinions on the subject previously, that the message has had the effect of materially strengthening the ranks of agriculture. Generally speaking, it appears that the message has had the effect of a morsel of food which looked good to many but has not digested very well.

South of the Rio Grande

The People of Mexico

By C. E. Durst

IN THE July issue I described in a general way the agricultural situation which prevails at present in Mexico. While important things are already being done, these are as nothing in comparison with what might be done. Only four to five per cent of the land available for production purposes is under cultivation. By the building of irrigation projects in the drier sections, and through the development of other areas by clearing and other means, the productive area can be greatly enlarged. It is said that Mexico has the soil and climate for producing more sugar than Cuba, more pineapples than Hawaii, more bananas than Nicaragua and Costa Rica, more coffee than Salvadore, more cotton than Egypt, more coconuts than Panama, and more fiber than Luzon.

Besides being rich in agricultural possibilities, Mexico has other great resources. She produces more silver than any other country. She is second in the production of oil, third in the production of lead and zinc, and she produces almost the world's entire supply of sisal. Under favorable economic and political conditions, the output of these resources could easily be greatly increased. Add to these various factors the wonderful climate, and you have a combination that few countries in the world can equal.

Mexico Has Stood Still

But notwithstanding all of these tremendous advantages, Mexico has practically stood still for the last 400 years. A comparison with the United States affords a good example. In 1800, both countries had about 5,000,000 people. Now, after 125 years, Mexico has only about 15,000,000 people, whereas the United States has probably 120,000,000. The two sides of the Rio Grande show the situation from another angle. On the American side, the land is being highly developed, numerous irrigation projects are in full operation, citrus groves and other farm crops in luxuriant condition cover the landscape, fine roads serve the country, and the cities show rapid and substantial growth. Almost within a stone's throw on the other side of the river, under exactly the same conditions of soil and climate, facilities for irrigation, etc., the country presents a bare and desolate appearance. No irrigation projects are in evidence, few crops are grown, the roads and streets are rough and narrow, and the towns and houses suggest anything but a progressive spirit. Throughout Mexico, the conditions are much the same. Numerous evidences of long habitation are present, but little material progress is being made.

What are the reasons for these enormous differences? How can it be that one country has stood practically still while another has gone rapidly

forward. It is easy, of course, to blame the matter on the Mexican people and conclude that they are incapable of better things. Some writers have done this, but I do not believe they have accurately described the situation. The situation can no doubt be explained partly on the basis of race, but in my opinion the conditions under which Mexico and her people have been forced to exist during the last 400 years are quite as responsible as the question of race, and probably more so.

Population and Classes

As stated, there are about 15,000,000 people in Mexico at present. No definite statistics are available as in the United States. There is considerable difference of opinion as to the division of classes, but one of the best authorities estimates that the pure Indians constitute 38 per cent in population, the mixed bloods or *Mestizos*, 43 per cent, and the pure or nearly pure whites, 19 per cent. The foreigners number about 100,000, of which about 20,000 are Americans, 20,000 Spaniards, and 5000 English. There are smaller numbers of many other nationalities.

The small population of Mexico is not due to a low birth rate. On the contrary, the birth rate is high. The families seem to be large. The death rate is quite high. In Mexico City, the rate is about twice as high as in the United States. This high birth rate would undoubtedly be still higher were it not for the fine climate and dry air. Poor sanitary conditions and lack of education are no doubt mainly responsible. In a number of places, we saw open sewers in the town streets. The buzzard is the national bird of Mexico and is protected by law because of his part in destroying refuse. In many places they swarm the housetops and fences, where they wait for carrion and waste materials. Naturally, they become very tame.

Practically the entire population speaks Spanish. There are, however, 69 dialects still in use among the various Indian tribes. A few of them still retain their own laws. The Indians have very largely become assimilated in the general population. The task of creating a national spirit out of such a population is without doubt a large one. Only one English newspaper is printed in Mexico, and this is issued at Tampico. At Mexico City, one of the dailies prints an English section.

The peons constitute about 95 per cent of the population. Their lot is

indeed a hard one. They have been kept in a condition of bare subsistence for centuries by the ruling classes. Even today a peso a day, or about 50 cents in American money, is a good wage. The peons wear few clothes and these are usually much patched, though as a rule they are clean or fairly so. Sandals are worn by the men and many of the women go barefoot. The men seem to have a more hopeful look on their faces than the women. Most of the women have a sad, dejected appearance, indicating that they are resigned to the fate of having nothing to look forward to. The houses in northern Mexico are constructed mostly of adobe, though in some cases stones are used. In southern Mexico, particularly in the tropics, the houses are mostly made of bamboo or lumber and thatched roofs. The houses have one or two rooms as a rule, and often there is only one door and no windows. When there are windows, these are often fitted with iron bars in the towns to prevent thievery. Practically every peon home has a dirt floor, a small amount of very ordinary furniture and straw mats for beds. Tuberculosis and pneumonia are said to be quite common.

From what we had heard in advance, we expected to find the Mexican people highly sensitive, radical, irresponsible, unreasonable and treacherous. Our fears were unfounded. All of our party stated that they had never been treated more courteously anywhere, and we met people of all classes, ranging from President Calles himself and members of his cabinet down to the humblest peons out among the mesquite and cactus. The officials might have had a purpose in being courteous. However, they appeared to use no undue pressure or emphasis in the talks they made to us. They simply stated the facts as they believed them and in a plain, simple manner. Their attitudes on such occasions were always noticeably earnest. So far as the peons and common people were concerned, they could not possibly have had any ulterior purpose in being courteous. Our entire party, after visiting 16 of the 28 states of Mexico and seeing the people in their various walks of life, reached the conclusion that fundamentally they are honest, kind hearted people. They have been taken advantage of frequently in their history, and this has tended to make them distrustful, and unquestionably the admixture of Spanish blood accounts for the existence of treachery. The lack of education—80 per cent of

the people are illiterate—is without doubt a factor in the situation.

The Mexicans Are Fundamentally Honest

As for honesty, we saw a number of conspicuous cases of this. In Mexico City, I saw several boys carrying money bags on their backs. All trading is carried on in pesos, and numerous other coins of lower value but not of smaller size in all cases. Therefore, a relatively small amount of value is often represented by a considerable bulk of money. One evening, I saw a man carrying three money bags on his back that were so heavy he actually stooped. Naturally, he had to proceed slowly. I was told that robbery in such cases was rare. When we consider what a slim chance such money would have of getting through the streets of Chicago or New York, and that it is necessary for us to use armored cars and armed soldiers to prevent robbery in our cities, we have no good basis for criticizing the honesty of the Mexican people. One evening one of our party, while inspecting a market, asked the price of a trinket, two of which he held in his hand. The Indian woman, thinking he wanted both, gave him a price on the two. He paid her and started off with one of the articles. Hailing him, she finally succeeded in explaining that her price was for two articles, and she wanted to know whether he wished her to give him the other article or return half the money. He took half the money.

The Mexican people are not intellectually deficient. They have bright dark eyes and pleasing expressions that indicate refinement of impulse. They may be ignorant as a result of the conditions under which they have been compelled to exist, but they cannot be classified as incapable. They seem to be quite submissive, and their lack of initiative and resourcefulness has made it easily possible for other people to take advantage of them.

The Mexican Love of Art

One conspicuous trait of the Mexicans is their love of art. Throughout Mexico we frequently heard the Mexican music. It is a marvelously appealing type of music that borders on the sad, and the Mexicans are experts in rendering it. In Mexico City one Sunday morning, in an amphitheater among the enormous trees of Chapultepec Park, we heard a recital by a noted Spanish orchestra whose equal I do not believe I have ever heard.

All over Mexico, one sees evidences of this art. The hotels are frequently decorated with statues and carved stone. The parks have many statues of the most expensive nature. Almost every town has a statue of Hidalgo

(Concluded on page 18)



Left.—Typical peon homes in southern Mexico. The houses are built of bamboo slabs and have thatched roofs in most cases. Right.—A street in Orizaba. Note the rough cobblestone roadbed and the houses built directly to the street. Mt. Orizaba, 17,800 feet high, the second highest in North America, is in the background

July Crops Estimates for Apples, Peaches and Pears

THE FOLLOWING TABLES give comparisons, as announced by the the estimated production on July 1 United States Bureau of Agricultural of apples, peaches and pears, with Economics:

APPLES—Commercial Production—Barrels

	July 1, 1927	July 1, 1926	Final, 1926
Maine	510,000	464,000	450,000
New York	3,963,000	5,804,000	6,500,000
Pennsylvania	991,000	1,400,000	1,796,000
Ohio	616,000	712,000	1,006,000
Michigan	1,218,000	1,382,000	1,489,000
Missouri	321,000	570,000	619,000
Maryland	276,000	.....	600,000
Virginia	1,355,000	2,921,000	3,348,000
West Virginia	627,000	1,255,000	1,700,000
Arkansas	319,000	673,000	590,000
Idaho	1,250,000	1,881,000	925,000
Colorado	624,000	946,000	969,000
Utah	151,000	.....	160,000
Washington	7,242,000	9,720,000	8,550,000
Oregon	974,000	2,069,000	1,700,000
California	1,549,000	1,927,000	2,048,000
Illinois	824,000	1,200,000	1,250,000
Delaware	360,000	.....	660,000
Other states	3,109,000	.....	4,825,000
Totals all states	26,179,000	33,355,000	39,095,000

PEACHES—Bushels

New York	1,237,000	2,543,000	2,300,000
Pennsylvania	1,081,000	2,172,000	2,498,000
Ohio	1,198,000	1,765,000	2,120,000
Illinois	1,190,000	2,337,000	2,660,000
Michigan	607,000	.....	1,564,000
Maryland	349,000	.....	700,000
Virginia	522,000	.....	1,176,000
North Carolina	1,159,000	1,456,000	2,100,000
Georgia	6,004,000	8,778,000	9,400,000
Arkansas	1,352,000	1,915,000	2,400,000
Colorado	840,000	.....	976,000
California	20,216,000	20,149,000	21,252,000
Other states	9,707,000	.....	13,279,000
Totals all states	45,462,000	61,680,000	68,425,000

PEARS—Bushels

New York	1,663,000	.....	2,388,000
Michigan	580,000	.....	859,000
Colorado	612,000	.....	564,000
Washington	1,455,000	.....	3,220,000
California	7,952,000	.....	9,000,000
Oregon	1,128,000	.....	2,100,000
Other states	4,260,000	.....	7,783,000
Totals all states	17,650,000	.....	25,644,000

Apples for Health, Inc., Reports Progress

A RECENT announcement of Apples for Health, Inc., states that an all Northwest conference was recently held at Spokane, Wash., following the holding of a series of smaller meetings in the various producing sections. Paul Stark, president of the organization, reports that resolutions of endorsement of the apple advertising movement were passed at each meeting. Representatives of the growers, shippers and railroads were in attendance.

The announcement further states that a national advertising agency, the same one which handled the "Say It With Flowers" campaign, has been engaged to solicit growers, shippers and carriers for the purpose of raising the \$4,000,000 that are desired and also to prepare and place the advertising in the campaign to increase apple consumption.

Grape Clearing House to be Established in California

PLANS for a California clearing house to furnish grape growers there with daily information on prices and shipments for the purpose of more orderly distribution of the crop are being developed by growers, shippers and railroad officials in California, according to Lloyd S. Tenny, chief of the Bureau of Agricultural Economics, United States Department of Agriculture.

The clearing house was expected to start operations about July 15 and continue during the grape shipping season. The plan provides for the establishment of a central office in San Francisco with C. E. Schultz of the Bureau of Agricultural Economics in charge. Both the bureau and the California Department of Agriculture will be represented in the work by Wells A. Sherman, recently appointed director of the California Bureau of Markets, who will keep in close touch with the situation.

Under a contract to be entered into by individual shippers and the Cali-

fornia Vineyardists' Association, each shipper will agree to furnish to Mr. Schultz a daily detailed record of his sales and of quotations wired out by him. This information will be compiled so as to show the number of carloads of each variety and grade sold at different prices, and to show the prices which shippers are asking for certain varieties and grades without revealing the identity of any of the individual transactions.

Railroads will furnish Mr. Schultz with records which will enable him to determine and publish the following information:

(a) The number of cars of each variety of grapes forwarded East and North through California gateways each 24 hours.

(b) The destinations of cars by classes (white juice, black juice and table) when such cars pass through California gateways; Salt Lake City; Ogden; Belen and El Paso; Council Bluffs; Omaha and Kansas City; Chicago and St. Louis.

This information will be supplemented by reports from the principal eastern markets showing the number of carloads of each class arrived, on track, and unloaded each 24 hours.

The statistical report containing the foregoing information will be mailed by the California Vineyardists' Association to each shipper-member of the clearing house. An executive committee of the clearing house will also issue certain general recommendations with regard to volume to be moved from California and other pertinent matters which will accompany the statistical reports. It is proposed to work actively through district organizations of the shipper-members of the clearing house in enforcing the recommendations of the executive committee and in working out any temporary or permanent programs that seem necessary.

It is reported that the quantity of grapes now represented in the clearing house is between 45,000 and 50,000 carloads. All expenses of the clearing house except the salary of Mr. Schultz are to be paid by the California Vineyardists' Association from fees charged for the clearing house service.

Markets and Marketing



THE HIGHLAND Citrus Association of Highland, Calif., recently organized as a co-operative group, joined the Redlands-Highlands Fruit Exchange and began marketing through the California Fruit Growers' Exchange on April 1. The association handles about 1000 acres of oranges, chiefly Navel, and will ship about 200 cars during the remainder of the season. Next year it will probably have about 700 cars of oranges, grapefruit and lemons to market.

THE ARIZONA Citrus Growers of Phoenix, Ariz., expect to ship about 10 per cent more grapefruit than last year. The orange crop was short, leaving the pack about the same as last year, which was about 400 cars, although the fruit was not all sold in carlots. About three-fourths of the output consisted of grapefruit.

The first pool of grapefruit for the present season contained over 50,000 boxes, the second about 35,000 and the last will probably contain about 60,000 boxes.

At the recent annual meeting the general manager reported that last year's cost of packing was 57 cents per box and the cost of selling eight cents per box. This cost was based on an output of 186,000 boxes, of which 170,000 boxes were packed and the rest sold loose or as culls.

The members were apparently satisfied with the work of the board of directors the past year and the same members were elected, as follows: Dr. A. C. Armbruster, W. A. Perry, E. D. Tway, Frank W. Avery and G. C. Taylor.

At the close of the meeting, the directors re-elected Frank W. Avery as president; W. A. Perry as vice-president; George H. Libbey as secretary; and I. deR Miller as treasurer. Mr. Miller was chosen as general manager for the year and Mr. Libbey as plant superintendent.

Amendments to the by-laws were adopted to provide for the return of reserves to growers through a revolving fund. During the past season the association has purchased additional property to take care of a proposed enlargement of the plant, which will be necessary in order to handle the new plantings of citrus fruits which are coming into bearing.

E. L. WIRT, Bartow, Fla., was re-elected president of the Florida Citrus Exchange at the recent annual meeting. C. C. Commander was re-elected general manager by the directors. Mr. Wirt will also continue to be chairman of the board.

Other officers elected were F. C. W. Kramer, Jr., Leesburg, first vice-president; John A. Snively, Winter Haven, second vice-president; H. C. Tilden, Winter Haven, third vice-president; C. H. Walker, Bartow, fourth vice-president; George A. Scott, Tampa, sales manager; A. H. Blanding, Tampa, production manager; John Moscrip, Tampa, advertising manager; E. D. Dow, Tampa, traffic manager; O. M. Felix, Tampa, secretary; William Covode, Tampa, cashier.

The new executive committee is composed of F. C. W. Kramer, Jr., H. H. Kellerman, J. Varn, B. F. Stewart, W. W. Yothers, John A. Snively and H. E. Cornell.

Two new directors were elected as follows: J. C. Merrill, Marion, and C. H. Walker, Sevier.

The size of the contingency fund, which is accumulated by a retainer fee of one cent per box on all ship-

ments, was reduced to \$300,000 in cash or liquid assets as against the figure of \$750,000 which has prevailed heretofore. This fund is used in the form of emergency insurance, and, according to Mr. Commander, it is not necessary to have a fund larger than \$300,000.

CHANGES in the United States grades for barreled apples were considered in a meeting recently held by the Bureau of Agricultural Economics and representatives from various barrel apple states. Those in attendance favored a modification of the United States Fancy grade so as to permit blemishes such as slight russeting and small light colored limb rubs. It was also proposed that specifications be included in the United States standards for condition and pack to be used by the inspectors when certifying apples for export, and that definitions be added that will clarify grade terms.

No changes in color requirements for United States Fancy or United States No. 1 were recommended. There was a strong sentiment in favor of marking the range and sizes of the fruit on the barrel heads instead of using minimum sizes only, as has been the custom for years. The following export standard was recommended for use by inspectors when certifying apples for the apple trade: "Apples shall be tightly packed, maturity not ripier than firm ripe, free from scald, and shall show not more than one per cent decay."

It was also suggested that the face of the barrel shall be reasonably representative of the contents in size, color and quality. The states of New Hampshire, Massachusetts, New York, Pennsylvania, New Jersey, Maryland, Virginia, West Virginia and Ohio were represented in the conference.

A STUDY of the production and market outlook for Kentucky strawberries was recently finished by the Kentucky Extension Division and reported in Circular 204. The survey considered trends in strawberry acreage in Kentucky and other states, market factors, prices and co-operative marketing. It was found that high quality fruit was able to compete most successfully in the markets.

The study showed that periods of low prices and high production, and periods of high prices and low production, usually go too far or move too slowly to be most profitable in the long run. The study indicated that the greatest profits for Kentucky farmers would result from a combination of enterprises which results in the most efficient use of their land, tools and labor rather than in the sudden jumping into and out of enterprises which seem to be more profitable or less profitable, as the case may be.

A REPORT from the Honolulu chamber of commerce states that heavy rains have furnished ideal conditions for the pineapple crop and that the canneries report an excellent pack to date.

AS A RESULT of recent additions to the membership and tonnage, the acreage of the Yakima Fruit Growers' Association has now reached the 10,000 acre mark and the membership is approximately 1000.

This year only a few contracts have been cancelled. These controlled only

for August, 1927

about 200 acres. These cancellations were probably all due to the sale of properties or to the making of new leases. Some of the new owners and lessees have already taken out new contracts.

A group of growers from the Cowiche district joined the association in a body and agreed to purchase the Cowiche warehouse from the Perham Fruit Company. They subscribed to preferred stock amounting to \$25 an acre toward the purchase of the building and equipment, thus enabling the association to finance the deal without impairing the capital investment.

THE COUNCIL of the National Farmers' Union of Great Britain is making representation to the government urging that legislation be passed to prohibit the importation of apples into Great Britain unless the consignments are accompanied by a certificate showing freedom from poisonous products, referring, we presume, to arsenical spray residue.

THE MUTUAL Orange Distributors is constructing a headquarters building in Redlands at a cost of about \$50,000. This co-operative, established in 1906, has grown steadily until its tonnage in 1926 reached nearly 9000 cars of citrus fruits. The 1927 output is expected to reach about 11,000 cars.

The organization now has about 35 local associations in its membership and about 2500 growers.

The building will be dedicated in August, when representatives from all citrus sections of California and Arizona are to be present. The dedication program will include several prominent speakers from California. Invitations have also been extended to the sales representatives of the organization throughout the United States and Canada, Great Britain and other foreign marketing centers.

THE JUNE 1 crop report of the Canadian Department of Agriculture, issued on June 15, indicates that the 1927 commercial crop of the dominion is to be about 25 per cent larger than that of 1926 and about 15 per cent larger than the five-year average. The following table gives the estimated crop for 1927 and the crop of 1926 in the various provinces:

	Per cent of 1926	1927 (Estimated)	1926
British Columbia	80	1,049,870	1,312,360
Ontario	169	1,081,650	598,700
Quebec	91	105,870	115,800
New Brunswick	100	30,000	30,000
Nova Scotia	162	1,500,000	927,370
Total	126	3,767,390	2,984,230

The Canadian fruit crop estimate for July 1 had not been received at the time this issue went to press.

Monthly Market Review

THE FOLLOWING summary of the fruit marketing situation was furnished by the United States Bureau of Agricultural Economics on July 9:

"Supplies of fruits and vegetables by rail made sharp gains about the middle of June. They have been moving ever since at the rate of about 3000 cars a day, compared with only 2000 early in the summer. Weekly totals now are a little heavier than last year because of earliness and activity of western cantaloupes, southern melons and peaches.

"Such storage lines as apples, oranges and sweet potatoes tend to prolong their seasons later into the summer with the progress of cold storage methods. Supplies of fruits and vegetables as a group are not much greater than the liberal mid-summer receipts a year ago and prices average about the same, although they are lower for potatoes, cantaloupes and cabbage and a little higher for melons, onions and some less prominent lines. Probably truck growers have taken in more money this season because of the early start which has brought the season's combined ship-

ments well above 700,000 cars compared with about 630,000 cars to the middle of July a year ago. Shipments, except those of two or three products, have not usually crowded the market too hard to maintain a fairly steady level of prices.

"The season continues early in the South and is still a little backward in the North, especially so in the north-eastern states. The Northwest and Central West have been catching up nearer to usual conditions. There was rain enough in most sections lately and crops are flourishing, but a long summer will be needed for late northern products. Indications suggest larger than average production of potatoes, onions and cabbage, and of berries, but tree fruit prospects continue rather poor. Business continues

active, although a few important lines of industry have been slowing down more than is usual in summer.

Apple Season Starts

"A few hundred cars of new apples have been received from the region from New Jersey, Maryland and Georgia westward to Illinois. Prices have ranged from \$1.25 to \$1.75 per bushel, which is not far from the July range of prices last season. California apples start to market later this year, affording a little more time to clean up the old crop and the new arrivals. Scattered sales of Baldwins and Albmaries Pippins were still being reported in the city markets, some as high as \$6 per barrel, and some advances were noted in late sales of northwestern boxed fruit. Total crop

prospects continue rather poor in the United States, with much complaint of summer drop owing to weakened condition of the trees. Canada, which had a light crop last season, is likely to have about one-fourth more apples this year, from early indications. Important increases are in Nova Scotia and Ontario, both of which promise to compete sharply in the export trade. British Columbia's heavy crop of last season is not expected to be equaled this year. Later reports of damage to the English fruit crop mention especially the standard late varieties used both for cooking and dessert, but the early varieties seem to have escaped in many sections. There will be more apples in Germany and other continental countries of Europe."

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Original Jonathan Apple Tree to Be Honored

THE Jonathan apple tree is to be honored this summer at the place of its origin, Woodstock, N. Y., with the visit of the New York State Horticultural Society at its eastern summer meeting, August 12, and the erection of a suitable marker for the spot. The Jonathan tree originated about the year 1800 on a farm then occupied by Philip Rick. It was brought to the attention of Judge Buell of Albany by Judge Jonathan Hasbrouck of Kingston, for whom the variety was named.

The meeting will depart from the regular custom of orchard inspection and will become a pleasant outing and gathering for people from New England, New York, New Jersey and Pennsylvania. There are many attractions in the Hudson River Valley this year, aside from orchard operations and the interest in the Jonathan apple, which will make the meeting all the more attractive.

Nestled at the foot of the Catskill Mountains, only 10 miles from Kingston, Woodstock has become nationally known as a center of art. The haunts of Rip Van Winkle are a few moments' drive to the north and easily reached. Ashokan Reservoir, that supplies New York City with a large share of its water, is to the south. Travelers from the south will have the opportunity of passing

through the United States Military Academy at West Point, over the Storm King Highway skirting the Hudson River, and within a few rods of two of the cottages made famous by the writings of John Burroughs.

To the east are the Berkshire Mountains, to the south is the great city of New York, to the southwest is Delaware Water Gap, and farther to the north are the Adirondack Mountains, the Champlain country, the White Mountains and the Green Mountains.

Furthermore, the state of New York is this year celebrating the one hundred and fiftieth anniversary of some of the major activities of the Revolutionary War, namely, the Battle of Saratoga and the maneuvers in the Hudson River Valley. All in all, the stage seems set for an unusually interesting gathering whose pleasure will be shared by visitors from several nearby states.—H. B. Tukey.

THE PINEAPPLE industry in the French West Indies is still in its infancy, according to the United States consul at Martinique. Cultivation at present is carried on only by canneries or packers. About 200 acres are planted at present. About 100 acres were in production in 1926. According to the best estimates obtainable, the production amounted to 250,000 tins in 1926. The 1927 production is estimated at 345,000 tins.

The Editor's Mail Box

Wants Experience of Others With Cider

Editor, AMERICAN FRUIT GROWER MAGAZINE: I am a constant reader of the AMERICAN FRUIT GROWER MAGAZINE and would like to hear of the experience of others who are making and selling sweet cider. A few people drink cider outside the season. I wonder if any growers have been able to develop a demand for it the year round and what channels of trade have been used to market the product. Also, I should like to know what experience others have had in manufacturing and marketing pasteurized cider. Successful marketing of by-products has been the salvation of many an industry and I believe it might be the salvation of the apple industry if it were developed on a large scale. Many cull apples which are sent to market could better be worked up into some by-product. If cider drinking could become popular, it would open up a new market. I hope you will ask readers to open up a discussion of this subject in the AMERICAN FRUIT GROWER MAGAZINE as I believe the result would be beneficial as well as interesting.—E. B. M., Pennsylvania.

ANSWER: I think you have emphasized a most important point. It is undoubtedly true that development of the market for cider would help greatly in solving the apple marketing problem. A great many of our readers, I am sure, have had experience along this line, and I believe that they will be glad to submit an account of their experience.

Spray Machine Sales

Editor, AMERICAN FRUIT GROWER MAGAZINE: Can you give me figures as to the number of spraying machines sold in the United States last year?—J. E. N., Pennsylvania.

ANSWER: I do not have any figures for the year 1926, but figures for 1923, 1924 and 1925 are contained in a circular recently issued by the Bureau of Census, entitled "Manufacture and Sale of Farm Equipment."

This publication shows that spraying machines of different kinds were sold during the three years mentioned as follows:

	1925	1924	1923
Spraying outfits, complete—Power (not including engine).....	9,926	18,959	12,045
Hand (with tank, barrel, knapsack, etc.).....	247,764	144,029	191,572
Spray pumps (not included above)—Power.....	3,840	13,234	11,840
Hand (not including small spray guns).....	82,294	78,600	101,926

*Change in figures made since publication of bulletin.

Anthraxnose on Raspberries

Editor, AMERICAN FRUIT GROWER MAGAZINE: I am sending you under separate cover some black raspberry stems which are infected with some disease. Will you kindly advise me what the trouble is and tell me how to control it. It is very bad among my plants, and I feel it is very important that something be done to check it if I am going to have a good crop next year.—J. H. L., Indiana.

ANSWER: The spots on the stems were caused by anthracnose. This disease is rather common on black raspberries and causes a great deal of damage every year. It seems to be particularly bad this year especially in the Middle West.

Unfortunately, there is practically nothing you can do at this season of the year to check the disease. By spraying the young growing canes, you may be able to check its spread to some extent, but this is about all you can do. If you care to spray the young shoots, I suggest that you use lime-sulphur 1-10 or 2-4-50 Bordeaux and one pound calcium caseinate to 100 gallons or a gelatin sticker.

The best way to control raspberry anthracnose is to follow a good spraying program, starting in the winter or early spring. While the canes are still dormant or when the leaves are just beginning to show green, give the plants an application of winter strength lime-sulphur. * About one week before the blossoms open, use summer strength lime-sulphur 1-40 or

1-50 or 2-4-50 Bordeaux mixture. Some authorities feel that Bordeaux mixture is more likely to damage the foliage than lime-sulphur early in the season. There seems to be a growing tendency to use lime-sulphur for summer spraying of brambles as Bordeaux appears to cause more injury than lime-sulphur.

In addition to using a good spraying schedule, one should use disease-free plants for starting new plantations. Good fertilization and thorough cultivation are helpful in keeping the plants in healthy condition.

Probably Apple Aphids

Editor, AMERICAN FRUIT GROWER MAGAZINE: We have something on our apple trees we do not understand. Many of the leaves are more or less curled. When a leaf is straightened out it breaks in several places. The color is not changed. What is the cause of this condition?—W. T. W., Illinois.

ANSWER: From your description, it is my belief that your trees were infested this spring with apple aphids. The leaves often behave in the manner you have described when they have been attacked by this insect. If you will examine the undersides of the leaves carefully, I believe you will find small black bodies that are the remains of insects that have died. Possibly you will also find some live insects. These have green bodies.

Unfortunately, you cannot do anything to correct the injury at this time. In the control of this insect, it is very important that the trees be sprayed with some contact insecticide, such as Black Leaf 40, early in the spring about the time the leaf buds are beginning to burst. A spray applied at that time will usually control the insect very satisfactorily.

If the trees have been badly attacked, they are no doubt considerably weakened, and in this case it will be a good thing to apply some nitrate of soda or sulphate of ammonia and to cultivate the trees fairly well for the next couple of months. This treatment will help the trees to overcome the effects of the insect.

Cannot Expect Large Growth First Year

Editor, AMERICAN FRUIT GROWER MAGAZINE: Some cherry trees which I set out this spring have put forth leaves, but they are not growing well. They seem to be standing almost still. Will you kindly give me your advice about them. Also, I have a yellow sweet cherry that is about 35 years old. It has borne only one good crop. It is healthy and vigorous. How can I make it bear?—A. H. S., Pennsylvania.

ANSWER: You cannot always expect a large growth from cherry trees the first year, especially if the conditions early in the season are not entirely favorable or if the trees were not in excellent condition at the time of planting. If you succeed in keeping the trees alive the first season and in fairly healthy condition, you should be pretty well satisfied. If the trees seem to be in danger, I would suggest that, if possible, you water them during dry periods. The application of a small handful of nitrate of soda around each tree may help. You should by all means keep the ground cultivated or hoe about the trees so as to destroy weeds and maintain a shallow soil mulch.

Regarding your yellow sweet cherry tree, many varieties of this type of cherry are self-sterile, that is, they will not usually set fruit when pollinated with their own pollen. Quite often you can bring such a tree into good bearing by planting near it a sweet cherry of another variety. Another and perhaps quicker way to accomplish the same purpose is to bud or graft into your tree some scions of buds from another variety. Still another way of accomplishing the purpose is to cut some branches from a tree of another variety just before they bloom in the spring and set them high up in your tree, with the bases in a vessel of water.

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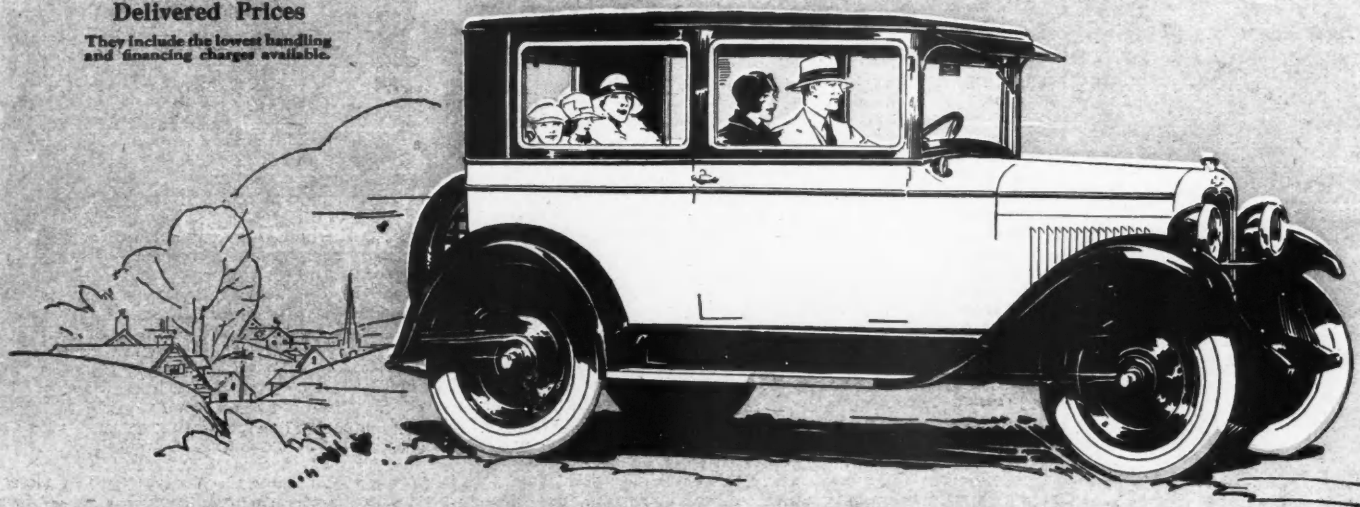
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American Apples Abroad

(Continued from page 3)

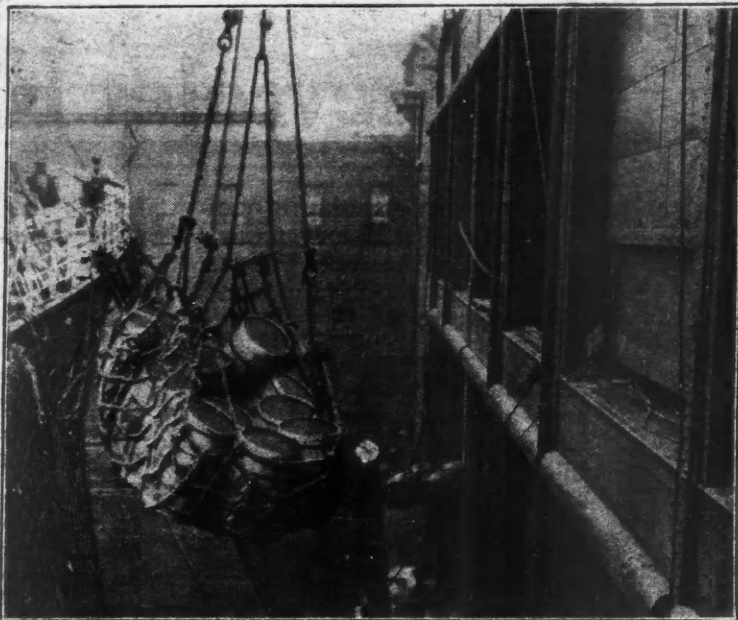
19,595 barrels of apples, and 5605 boxes of pears; or approximately 180 carloads of fruit. Shipments to South America are almost entirely in refrigerator stowage, on account of the length of the journey and the warm climates through which the ships pass, while shipments from the Atlantic seaboard to Europe are largely stowed in non-refrigerator space, except at the beginning and at the tail-end of the season.

A development of the past few years is the direct shipment of large quantities of western apples by ships sailing from Pacific Coast ports, via the Panama Canal, to European countries. A considerable portion of the total exports of western boxed apples in-

Africa and other distant countries are practically all sold at firm prices before being loaded into the ships at port of sailing.

Market Preferences

An interesting feature of the foreign demand for apples is the preferences displayed by different countries in the way of size and variety. In a broad way, South America demands large-sized apples, while Europe prefers small and medium-sized apples. The Delicious from the Northwest is the favorite in South America, and incidentally it is the most expensive apple grown. The average cost of a box of Delicious landed in South America is close to \$6, before dealers'



Loading barrels of apples on boat by means of slings for export shipment

tended for Europe is now moving in this way. This route furnishes cheaper transportation than where the apples are railed to New York and thence loaded into trans-Atlantic steamers. Direct shipments via the Panama Canal are always refrigerated. In December of this season, the steamship Nichteroy sailed from the Pacific Coast to European ports with 167,073 boxes of apples. This quantity was discharged at five European ports, Liverpool, London, Glasgow, Hamburg and Rotterdam.

Increased F. O. B. Buying

Up to a few years ago, the American apple deal in European markets was generally a consignment program. Many commission merchants located in the cities of western Europe carried on an aggressive soliciting campaign in American apple districts, with a view to securing consignments, either with or without advances. And a large portion of the apples exported to Europe at present are still sent on a consigned basis. But in recent years, a willingness to buy at firm prices has been manifested by many European fruit handlers. The progress made in better standardization, grading, packing, sizing; the added protection afforded by government inspections; and the improved business methods displayed by American apple shippers, have all worked towards the building up of confidence. European fruit merchants are therefore less timid about buying American apples f. o. b. New York, or f. o. b. the cars at apple loading stations, than was the case some years back. This tendency of greater f. o. b. buying is a favorable development, since it enables American producers to enjoy foreign outlets without incurring all the hazards incident to shipping their fruit thousands of miles on consignment.

Such shipments of apples as go to South America, Cuba, Egypt, South

Hable but much abused Ben Davis is a popular favorite in Teutonic circles.

Sales By Auction

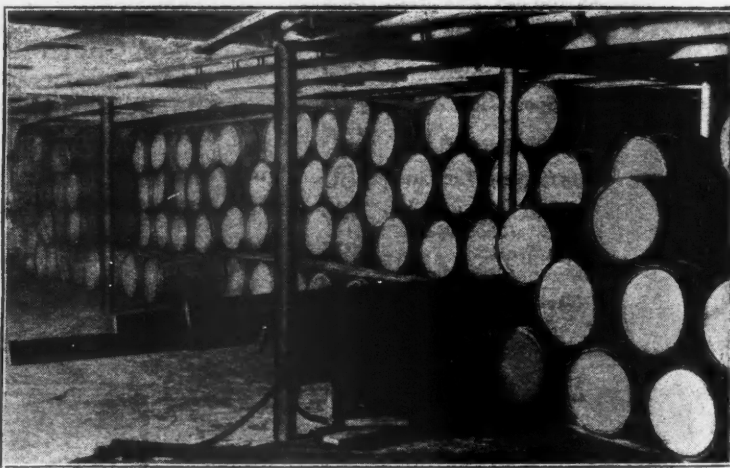
Distribution of apples in trade channels in European countries is largely by means of auctions maintained at the principal ports of discharge. The auction system of selling is developed to a greater extent in Europe than in this country. On days when large quantities of apples are sold at Liverpool, Hamburg or Rotterdam, the buyers assemble from localities within a radius of a few hundred miles, and bid in their requirements, and reship to their home communities. It may be of interest to the Scandinavian readers of the AMERICAN FRUIT GROWER MAGAZINE to know that in the fruit auction room of Copenhagen, Denmark, are to be found the best appearing and best dressed set of auction buyers of any fruit auction room in the world. All present in the buying room are proud possessors of white collars, and not a few may be seen strutting canes. This contrasts with Hamburg, London or Liverpool, where a considerable percentage of the buyers do not consider white collars a necessary article of apparel, except in attending funerals or weddings.

Apple shippers in New York, Virginia, Oregon, Washington and elsewhere are now eagerly awaiting the latest reports on crop prospects in various European countries. They wish no hard luck to European apple growers, but they realize next season's prices on American apples are to a considerable extent dependent on how many barrels and boxes may be shipped abroad.

An Experience in Marketing Peaches

(Continued from page 4)

problems before the peach growers, as well as growers of other fruits, to educate the public in the consumption of more fruit? And did not the growers of Henderson county do much toward selling their future crops profitably by inducing a larger consumption of peaches in a year when



A view of apples in the hold of a ship

profits are taken into account. It can readily be seen, therefore, that the cost per apple on the fruit stand must necessarily be high.

England consumes tremendous quantities of small sizes; five tier counts in boxed apples, and two and one-quarter inches in barrel apples. Custom is a dominating influence in Old England, and custom decrees that apples shall be sold by the pound, rather than by the piece or dozen. In selling by the pound, the dealers find they can sell only small-size fruit, which gives the housewife many apples to the pound. The Newtown from the West and the Albermarle Pippin from Virginia are leading favorites in England, although other varieties are consumed in large quantities.

Germany prefers medium-sized apples, running somewhat larger than those desired in England. The old re-

so much of the crop was put to no good use at all?

It would seem that the experience of the Henderson growers points the way out of such dilemmas as were faced by the peach growers last year. If a small town of 15,000 people can be induced to consume a bushel each per man, woman and child, why should not our cities of millions also be given an opportunity to have the peaches they want? If this is done, will there be any such thing as "over production?" We have the problem of getting this fruit to these millions at such a price as they can afford to pay, and here, it would seem, is the real problem which must be solved, that of distribution, a problem which can be solved whenever the same thought and energy has been put into it as has been put into the problem of production.

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Spray Residue Problem

(Continued from page 5)

the form of a 48-page station bulletin was printed, copies of which were taken to the Utah meeting, where it proved to be the first detailed report issued. Thus it aided in the deliberations there. A condensed summary of this bulletin by Prof. R. H. Robinson and Prof. Henry Hartman, which gives in the main the status of the problem at present, follows:

Hydrochloric Acid Chosen

1. Removal of spray residue by wiping and brushing has not been entirely satisfactory. No form of mechanical cleansing tested has proved effective under all conditions, and has resulted in more or less injury to the fruit.

2. Mechanical cleaning devices may also aid in the spread of decay organisms.

3. Experiments have shown that certain acids and bases will remove spray residue in varying degrees of effectiveness but only a comparatively few offer possibilities from a practical standpoint. No solvent is safe to use until an adequate storage test has demonstrated that no injury to the fruit results from its use.

4. Of the many compounds tested, none has proved to be superior to hydrochloric acid. This acid was found to be effective not only in removing arsenicals but also such residues as lead, copper and lime. It has proved non-injurious to fruit when properly used.

5. Other acids, such as nitric, acetic and sulphuric, while promising in some respects, have generally proved inferior to hydrochloric acid.

Bases Found Injurious

6. Although bases in general tend to remove spray residue, sodium hydroxide is the only basic compound discovered that successfully removes arsenate of lead under all conditions. It has proved less desirable as it is no more efficient than hydrochloric acid in removal of arsenate of lead and has been ineffective in the removal of copper and lime. In addition, it has resulted in more or less injury to the storage quality of fruit.

7. The use of oil sprays along with the arsenate of lead apparently retards the action of the solvents but does not make cleaning by this method impossible provided sufficient time elapses between the application of oil and date of treatment. The use of "spreaders" or "deflocculants" apparently does not interfere materially with the action of the solvents, and it appears that any brand of arsenate of lead used as a spray can be removed effectively by the hydrochloric acid treatment.

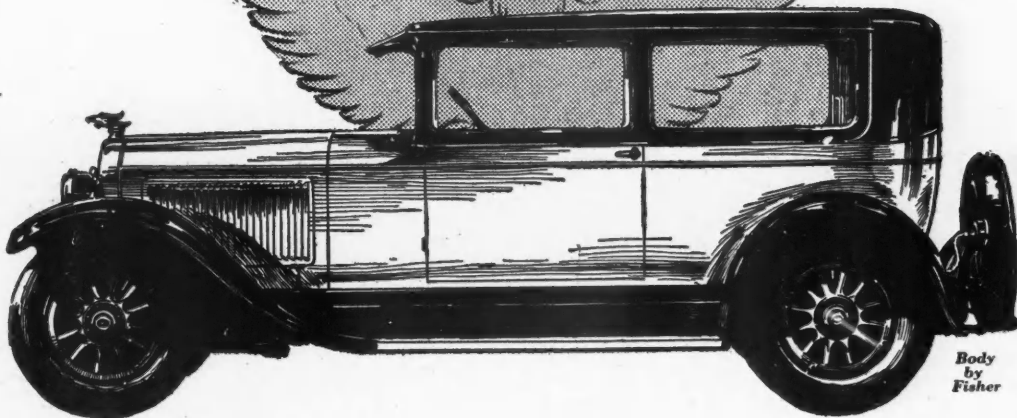
Added Benefit Looms

In the long series of tests made with hydrochloric acid, it was found that it has a number of desirable characteristics that fit it admirably for this new use. In the first place, it is cheap and easily obtained in large quantities. To make the one per cent solution recommended, it is only necessary to use three gallons of the 32 per cent (20 degrees Baume) commercial acid to 100 gallons of water. It is effective at low temperatures and is a non-oxidizing compound not likely to cause discolorations to injured tissue. Then, too, it is a volatile substance and disappears of its own accord when rinsing is not thoroughly done, making it impossible for acid to reach the consumer. Finally it is not a disagreeable material with which to work.

As the experimenters worked with these hundreds of tests, the idea arose that perhaps a means might be found to combine the acid with a fungicide which in the same operation would destroy the spores of decay organisms and practically put the fruit in sterilized form for storage or market. While no definite recommendations have yet been made by the Oregon station, Prof. Hartman announced early this summer that their experiments look promising. Some equipment companies, in fact, are so con-

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In the chassis—new factors of

reliability and endurance—factors that people have long hoped to get—but never in a car of Oakland's price.

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A longer, deeper, heavier frame, more rigidly braced. A new and softer clutch. A new and smoother transmission. New elements of steering ease. 4-

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ident of ultimate success of this phase of the investigations that they have already produced machinery especially designed for such a combination treatment.

Equipment Makers Active

When acid was used in field trials last harvest, no equipment had been produced, hence crude methods of application had to be used. The most frequent method was to submerge whole boxes in tanks of the solution as the fruit was brought from the orchard, and then set the apples or pears aside to dry before being packed.

Manufacturers of orchard and packing house supplies sent representatives at once, however, and before that first hectic harvest was over, more

elaborate apparatus was being tested. Grave fears were felt that adequate equipment could not be developed in one year to handle the huge Northwest crop. Today, however, these fears are dissipated, as no less than 12 manufacturers have machines on the market, most of them designed to receive the fruit as it comes from the field or from the picking warehouse, take it through the acid and rinse baths, dry it and deliver it at once to the sorting and grading machine.

These various machines employ a number of principles in applying the acid and rinse bath, many using an overhead jet spray principle as the fruit is moved along slowly below, while others use some form of partial or entire submerging. The latter

principle is used with machines designed for use with both a residue solvent and disinfectant. Adjustments are provided to keep the fruit in the solution as long as five minutes.

Most of this new equipment is necessarily fairly high in price as to first cost, but it is estimated that the entire operation of removing residue and disinfecting, if the latter proves practical, will cost only from one to three cents a box. Large numbers of the large commercial washers are being installed in both private and co-operative packing plants this summer.

Meanwhile, the Oregon Experiment Station and one or two equipment concerns are developing simple machines capable of being constructed

(Concluded on page 17)

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REMOVES DANDRUFF
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Has been used with success for more than 40 years

RESTORES COLOR AND BEAUTY TO GRAY AND FADED HAIR

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CHATS WITH FRUIT GROWER'S WIFE

By HAZEL BURSELL

Over the Picnic Campfire

"BE PALS with your children," is the advice most often given to parents by authorities on child psychology. "Play with them as well as work with them if you wish to carry to successful completion the greatest task entrusted to mankind—child rearing."

One of the simplest and jolliest ways of "being pals" with the youngsters is to enjoy frequent family picnics at convenient times during the summer months. What could be a happier ending for a day of hard work than a picnic supper in a nearby grove of trees or along the shady banks of a convenient stream or lake? Who among us, old or young, could fail to enjoy the short week-end automobile trip to some scenic spot for a day of loafing and good food, cooked in the open?

There are those blighted beings for whom the magic word "picnic" spells only acute discomfort, cuts on the hands, smoke in the eyes, soggy, cold food on treacherous paper plates and burned fingers. Of course, there may be incurables, but it is probable that most of these have never been exposed to a well-planned and efficiently equipped "cook picnic." Can't we all join the cause of the out-of-door kitchen, where wood smoke blends with intoxicating whiffs of coffee and broiling steak or chicken?

The Picnic Spirit

You see, fathers and mothers have to enter into the true picnic spirit and really enjoy themselves every minute if these outings are to be a source of pleasure for all concerned. You can't go on picnics from a sense of duty and expect any real enjoyment, either for the children or for yourself.

A properly planned and equipped picnic supper or dinner is, in reality, far less trouble than the usual meal at home. The right equipment usually means the difference between a conveniently prepared, enjoyable meal and its poor relation, the unsuccessful picnic supper, prepared with difficulty and resulting in great wear-and-tear on sweet dispositions. Once the right equipment has been assembled, it can all be kept together, possibly in or near the hamper, ready for instant use.

The first essential is a strongly-made hamper, adequate in size to take care of the needs of the family. The style to be selected will depend on the mode of transportation usually employed. If for the family automobile, the hamper should fit conveniently into a certain place in the car. A large coffee pot with a strong wire bail that will stand erect so that it will stay reasonably cool when the pot is over the fire, is the second essential. A large frying pan with tight cover, a large, long-handled sauce pan with cover, and a small covered sauce pan are other needed articles for camp cooking. A wire broiler supported on four 12 or 18-inch legs is another absolute "must-have" for comfort and ease in outdoor cooking. This broiler may be placed over the fire as a support for coffee pot, frying pan or sauce pans, or it may be used as a broiler for steaks, chops, etc., by placing directly over a bed of live coals.

Small Equipment Listed

Necessary small equipment includes three cooking spoons, three kitchen forks, one long-handled fork, one large carving knife, one paring knife, one combination can opener and corkscrew, two salt shakers for flour and salt with covers that close the per-

forations, one can of pepper, one long-handled spatula or pancake turner, one combination cannister for lump and loose sugar, a set of tin, enameled or aluminum plates—one for each member of the family—and teaspoons, knives and forks for each member of the family. A tin box for matches, a package of paper napkins, a covered tin box for cookies, cakes, crackers, etc., an old tablecloth to be spread over a foundation of newspapers, a few old newspapers, and a small hand axe or hatchet are also needed.

The most satisfactory way of taking care of the beverage problem is to purchase a gallon size thermos jug with the accompanying nested drinking cups which fit over the top. The jug may be used for ice water, lemonade, fruit punch or any other cool drink desired, in addition to the coffee which is being made over the fire, or it may be used for the hot drink itself if that is to be prepared at home. The cups may be used for beverages, soups, desserts or salads. Additional nested cups may be provided if needed.

Fireless Cooker Handy

If the household possesses a fireless cooker, certain foods requiring long preparation may be previously cooked and taken along in the heated fireless cooker and later served hot from the cooker when wanted. With the proper shaped pans, the cooker may contain the meat, vegetables and other main dishes for the meal and still be of a size convenient for handling. Meats may be browned in a skillet on top of the stove or in the oven before putting in the cooker. This is especially desirable if vegetables are to be cooked with the meat, since the steam from the vegetables will interfere with browning. There are also electric cookers which may be heated up before the family leaves home on a longer trip, which will then continue to cook the food for several hours on retained heat. A cooker of some kind insures quick meals after the destination is reached, but, to many persons, food prepared in the cooker hasn't half the charm that food prepared over the open fire has.

A perfectly broiled steak is a treat worthy of an epicurean. The ideal steak for this is a thick porterhouse, but, besides being most expensive, it requires most exacting broiling conditions. A sirloin of medium thickness requires less care in cooking, costs less, carves to excellent advantage and provides a delicious, juicy meat dish. Remember that a very hot fire and a hot pan are necessary for steaks of any kind. Pork chops are excellent for pan broiling for the picnic supper. Then, there is the ever-popular bacon and ham.

Have you ever tried hamburger steaks? They are inexpensive, involve practically no waste, and can be pan-broiled over the crankiest fire with good results. Hamburger steak should be seasoned with salt, pepper and onion, mixed well, and then moulded into one large cake or a number of small ones. Finally, dip the cakes in flour and wrap in wax paper till ready for frying. Fry quickly in a greased pan for a minute, turn, and then move the pan to a slightly cooler place on the grate. To this list of meats must be added frankfurters and sausages. Beef hash browned in a skillet and served with a garnish of fried eggs makes a most satisfactory combination.

To Cook Chicken

Chicken may be picked, singed,

washed, dressed and cut into frying pieces at home, wrapped in wax paper for transportation, rolled in flour and salt, and then fried in a skillet over the camp fire. A large quantity of fat should be used in the pan for chicken, preferably a mixture of butter and lard or meat fryings. The skillet should have a tight-fitting lid which should be placed on the pan as soon as the meat is nicely browned. In this way the meat may steam until done over a slower fire without burning. The lid may be removed again towards the last to insure a delicate, crisp, brown crust.

If you prefer, you may cook the chicken at home, wrap in waxed paper, and then, just before the feast, roll it in flour and fry in a skillet with plenty of fat. Be sure to cook the chicken with a delicately browned crust in the first place, or it will be hard and dry when finally cooked.

Potatoes may be served in many appetizing ways with little or no preparation at home and not much at any stage. They may be baked in the coals, or broiled, or raw fried. Or if there are some which have been previously cooked at home, they may be diced and sauteed in bacon fat. Creamed potatoes are easy to carry and reheat, or the cream sauce may be made over the fire when wanted, but this latter method will be found somewhat inconvenient. Creamed potatoes are especially delectable where a cold meat is to be served. New potatoes are delicious when creamed with other vegetables, such as new peas and carrots. New potatoes are most popular with our family when boiled in salted water, drained, and then browned in butter in a skillet placed over a medium fire.

Green vegetables may be taken canned for heating and seasoning over the campfire, they may be taken raw and cooked while the coffee water boils, or they may be cooked at home and reheated just before serving.

Green Vegetables Needed

String or lima beans may be cut up or shelled while the water is boiling, and how much pleasanter this homely task becomes in a picnic setting with the always possible advantage of willing assistance! Fresh tomatoes cut in thick slices and fried in bacon fat are a perfect accompaniment for steaks, chops, eggs in any form, or bacon. There is nothing better than green corn. For this, the water should be boiling vigorously in a kettle or bucket and the husked, silken ears dropped in three to five minutes before mealtime. Some authorities say that salting the corn water during the cooking process makes the corn tough. You can experiment and try out the theory for yourself, noting results carefully. Serve hot ears of corn with butter, salt and pepper.

For a combination vegetable salad, wash the lettuce well at home and pack in a glass jar with a few lumps of ice to keep it cool and crisp. Celery, cucumbers, beets, whole tomatoes and other vegetables may be carried in the same way. A pint or half-pint jar fitted with a rubber ring makes an excellent container for French or boiled dressing, as the case may be. For the French dressing, the ingredients may be measured into the jar at home and shaken up when ready for serving.

Juicy salads, such as fruit or tomato, should be mixed only at the last minute, but cabbage or potato salad is better packed with the dressing. The two last-named varieties should be eaten with cold meats or meat loaf on a day when little or no fire is desired. Bananas, split and spread with peanut butter and mayonnaise, or with cottage cheese, make an easily packed picnic salad which involves no preparation beforehand. Pineapple slices or halves of canned pears make excellent and easily prepared salads when served with grated American cheese or cottage cheese, and garnished with a dash of paprika.

One relish is sufficient for any one meal. Serve olives, or celery, or pickles, not a collection of all three, together with jelly and cheese. Do not prepare sandwiches where main dishes are also taken along; serve

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instead fresh bread or rolls and but-
ter. Let each diner spread his or her
own rolls. Sandwiches are best when
eaten with a salad.

Simple Dessert Advised

Again, there is often unwise expen-
diture in the matter of picnic desserts.
The wise picnic promoter will limit
dessert to one article and that a very
simple one. Sugared berries can be
taken in a jar ready to serve or can
be prepared while the dinner cooks.
Cantaloupes and other melons are
bulky to carry but are always accept-
able as dessert. Plain cookies of some
kind might be served with the fruit.
Occasionally, a freezer of ice cream
or fruit sherbet may be prepared and
taken along on the picnic as a special
treat to the members of the family.
Children will be especially thrilled
over the prospects of ice cream for
dinner or supper. Certain kinds of
pies carry well when left in the baking
pans, and they are always welcome
at any meal. However, do not serve
more than one kind at a time, as pic-
nic meals are usually rather hearty,
and there is consequently a tendency
to overeat.

Just a word or two more concern-
ing the transportation of equipment.
A stout canvas or burlap bag should
be provided in addition to the hamper
to hold all the large utensils which
become blackened over the fire. Do
not scour the outside of these, for the
sooty coating prevents scorching the
metal. If charcoal is available, you
might keep a small bag of it on hand;
a small amount will make ideal coals
for broiling when the wood supply is
scarce or inferior. All the equipment
mentioned in the first part of this ar-
ticle need not be taken on any one
trip, but most of it will be needed
when the meal is to be cooked over
the picnic fire.

Recipes for Peach Desserts

TO MOST of us the peach season
and strawberry season are two gala
occasions to be enjoyed to the utmost
while they last and to be cherished in
memory until they come again the
following year. We can extend these
all-too-brief seasons by canning the
fruits for late use. Peaches, especially,
lend themselves to canning. They
should be canned in syrup by the
cold-pack method, packing in wide-
mouthed jars. When opened and
drained they can be used in preparing
desserts which will be every bit as
delicious as those in which fresh
peaches were used. Dried peaches
may also be substituted in these
recipes by soaking overnight, cooking
until tender and draining.

Peach Amber

- 4 T. sugar
- 3 eggs, separated
- 3 T. butter
- Pie pastry
- 2 T. lemon juice
- 2 T. powdered sugar
- 2 c. peaches

Line a pudding dish or casserole with
pastry. Rub peaches through a sieve, add
sugar, butter and lemon juice, stir in
yolks of eggs, then pour mixture into
lined baking dish. Bake in hot oven for
about 10 minutes, or until pastry is
cooked, then cook slowly until fruit mix-
ture is set. Beat whites of eggs to a
stiff froth, then beat in powdered sugar
and a few drops of lemon juice. Pile this
meringue on top of pudding, decorate
with a few maraschino cherries, and
place in a warm oven to become deli-
cately browned. Serve cold or slightly
warm, with or without cream.

Peach Tarts

Line individual muffin rings with rich
pie pastry and bake in hot oven until
light brown. Remove from oven and fill
each crust with half a peach, peeled and
stewed until tender in syrup. Serve warm
with a cornstarch sauce, or cold with
whipped, sweetened cream.

Peach Pie

Line a pie pan with rich pastry, fill to
heaping with peeled peaches, cut in small
pieces. Sprinkle on 1 1/2 c. of sugar, mixed
with 2 T. flour, and dot with bits of but-
ter. Put top crust in place, pressing
edges of crusts well together, and place
pie in hot oven for 10 minutes. Then re-
duce heat and bake slowly until peaches
are tender. If you desire a particularly
nice brown on the top crust, run water
quickly over top of pie just before setting
it in the oven to bake.

Peach Salad

Allow one large half peach for each
serving, using either fresh uncooked
fruit or drained canned fruit. Roll each
half peach in blanched, chopped almonds.
Mix chopped figs and blanched almonds

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Refined Apple Juice

(Continued from page 4)

just as good juice as the more perfect
fruit and will bring a much better
price in juice form than in any other
condition, as well as relieve the fresh
fruit market of the under grades.

You will still have your "below
juice grades" for cider vinegar, as any
apple which has flavor suitable to
market in the fresh state will make
good juice. Yet many growers have
sacrificed quality for appearance or
heavy production to the extent that
there are many apples produced which
even the vinegar mills discriminate
against.

Long Time Investment Necessary

Most of you who have given this
matter thought have dropped the idea
with little investigation, owing to the
investment required in equipment,

bottles, etc., and to the fact that your
market is an all the year round one
rather than a cash proposition at
time of harvesting.

Why didn't you figure this way
when you planted your orchard? You
had no hope of returns for several
years. We will admit your planting
investment was mainly one of your
own labor. However, you had your
tie-up in real estate and would have to
pay taxes and perhaps interest, as
well as upkeep for several seasons;
before any returns could be had.

You now have a crop, a certain per-
centage of which costs you all you get
out of it, and in placing it on the
market in the fresh state, it barely
gives you wages for harvesting, pack-
ing and marketing. Your low grade
fruit takes the place of your better
class of fruit to a certain extent with
the consumer and reduces the value

(Concluded on page 17)

broken in pieces and fill center of each
peach. (Other nuts may be used if pre-
ferred.) If fresh, raw peaches are used,
place a tablespoon of sugar in each cavity
and let stand for 30 minutes before serv-
ing. Arrange for individual service on
crisp lettuce leaf, and top each peach
with mayonnaise or boiled dressing.

Peach Ice Cream

- 3 pt. thin cream
- 2 c. sugar
- 2 c. peach pulp
- 1 T. orange extract

Peel peaches and put through a sieve.
Add sugar and allow to stand while pre-
paring the cream. Beat cream and freeze
to a mush, then add the fruit pulp and
finish freezing. If fruit and cream are
combined before freezing there is danger
of the mixture curdling. A little orange
coloring may be stirred into the cream
before freezing if a richer color is de-
sired.

Table of Abbreviations

- 1 t. equals 1 teaspoonful.
- 1 T. equals 1 tablespoonful.
- 1 c. equals 1 cupful.
- 1 pt. equals 1 pint (2 c.).
- All measures level.

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Fruit Pies—Open, Cross-Barred and Covered

By Barbara B. Brooks

Home Economics Department, Kellogg Company, Battle Creek, Mich.

FRUIT PIES are so delicious and popular that to say "fruit is in season" is almost the same as announcing pie for dessert. From the time the first pink stalks of rhubarb appear above ground, through strawberry, raspberry, gooseberry and apple season and on into the fall when cranberries are ripe, we have delicious fillings for pie. You have heard of the country waitress who said that there was a choice of three kinds of pie, "Apple—open, cross-barred and covered." With any of the fruits you can have these three kinds, and tarts, turn-overs and French pastries as well.

August is the one month when in almost every part of the country there is fruit of some kind ready to pick. Cherry season may be over, but surely some cherries have been canned to use for pies. Fresh berries are gone but in the fruit closet a row of jars full of luscious fruit tempts you to open them even before you really need the fruit inside.

A berry pie should be cooked in a deep pan lined with pastry. Sprinkle corn flakes over the bottom (to absorb the juice so that the crust will not be soaked). Fill with berries—at least two and one-half cups—sprinkle with sugar and add a pinch of salt. Cover with a complete top crust or strips of crossed pastry. Bake in a hot oven for 10 minutes, then reduce the heat and bake slowly until done.

If the fruit is unusually juicy, one tablespoon of flour may be sprinkled over the fruit. If the berries are not tart (as huckleberries) one tablespoon of lemon juice can be added to the filling.

There are almost as many kinds of apple pie as there are sections of our country. In New England a two crust pie is baked and taken from the oven. The top crust is carefully lifted and a liberal amount of butter put in. The top is replaced and the pie served hot. In Arkansas two crusts are used but the pie is served cold. In eastern Pennsylvania the turn-over is popular, while in North Carolina the cross-barred pie is the favorite and it is often topped with whipped cream. The deep-dish apple pie without a lower crust is said to be of English origin but we find this in many parts of New York state. Apple sauce pie is a favorite in Michigan and is usually made with a meringue or with whipped cream instead of a top crust. An imitation apple pie is made by putting alternate layers of corn flakes and sliced apples, sprinkled with cin-

Classified Advertising

MEN, GET FOREST RANGER JOB: \$125-\$200 mo. and home furnished; permanent, hunt, fish, trap. For details, write Norton 202, McManis Bldg., Denver, Colo.

MANUSCRIPTS WANTED

EARN \$25 WEEKLY, SPARE TIME, WRITING for newspapers, magazines. Experience unnecessary. Details free. Press Syndicate, 979, St. Louis, Mo.

PERSONAL

RHEUMATISM—I WILL GLADLY TELL ANY- one how I was cured in four days after two years' terrible suffering. It makes no difference what form you have, what you've tried or how long standing. Send name and address today. Dept. Z, Box 147, Little Rock, Ark.

POSITION WANTED

WANTED—POSITION AS ORCHARD OR PACK- ing house manager. Fourteen years' experience. References. J. R. Cline, Paoli, Ind.

POULTRY

FOR SALE—EARLY HATCHED WHITE LEG- horn pullets produced from Ohio accredited chicks. Better Poultry Company, Sugar Creek, Tuscarawas County, Ohio.

STARTERS

STARTERS FOR FORDSON TRACTORS, \$13. W. H. Goddard, Johnston City, Illinois.

TOBACCO

LEAF TOBACCO—GOOD, SWEET, CHEWING. 3 lbs., 75c; 5, \$1.00; 10, \$1.75. Smoking, 3 lbs., 50c; 5, 75c; 10, \$1.25. United Farmers, Mayfield, Ky.

BETTER TOBACCO! FRAGRANT, MELLOW! Five pounds smoking, 75c. Four pounds chewing, \$1.00. Farmers' Club, 55, Hazel, Kentucky.

FARM WANTED

WANTED—HEAR FROM OWNER GOOD FARM for sale. Cash price, particulars. D. F. Bush, Minneapolis, Minn.

namon and brown sugar, into a baking dish and cooking in the oven until the apples are tender.

Peach pie is well liked too. An attractive way to prepare it is to bake the crust in individual pans, fill them with sweetened sliced peaches and top with whipped cream. A hollow may be made in the cream and filled with a spoonful of honey.

This is the time of year to be canning. Peaches and apples are ripening and will be the next fruit to go into jars. The following recipes are easy to prepare and will assure you of pie fillers for winter use.

Peaches (Cold-Pack)

Select peaches which are ripe but not soft. Those which are over-ripe may be used for jam or peach butter. Blanch (scald) quickly to loosen skins; cold dip for one minute, remove skins and pack (halves or whole) without crushing into hot jars. Fill with medium thick syrup made with three parts sugar to two parts water, partly seal and process in a hot-water bath for 20 minutes. Remove from canner and seal immediately.

Peaches (Open-Kettle)

Because of their rich flavor, peaches canned in the old-fashioned way are preferred by some home-makers to peaches canned by the cold-pack method. Make a medium thin syrup using three parts sugar to two parts water, bring to boiling point, drop in peaches (whole or halves), and boil gently until tender. Carefully pack into hot jars and seal immediately.

Apples (Cold-Pack)

Select firm, sound, tart varieties, slightly under-ripe. Wash, pare and core; cut into quarters, or leave whole as desired; drop immediately into a salt bath made in proportion of one tablespoon salt to one quart water to prevent discoloring; blanch (boil) for one minute to shrink; pack tight into hot jars, fill with hot, thin syrup, made with one part sugar to one part water, partly seal and process in a hot-water bath for 20 minutes. Remove from canner and seal immediately.

Apples (Open-Kettle)

Wash, peel, quarter and core the apples. Drop the quarters into thin boiling syrup made with one part sugar to one part water and boil until tender. Add the grated yellow rind of one lemon for each two quarts of apples. Boil the apples a few minutes longer. Pack into hot jars and seal at once.

Apple Sauce (Open-Kettle)

Wash, pare, core and remove specks or discolored portions. Cut into small pieces to prevent sticking and cook until apples are tender; sweeten if desired. Pack into hot jars and seal at once.

Spray Residue Problem

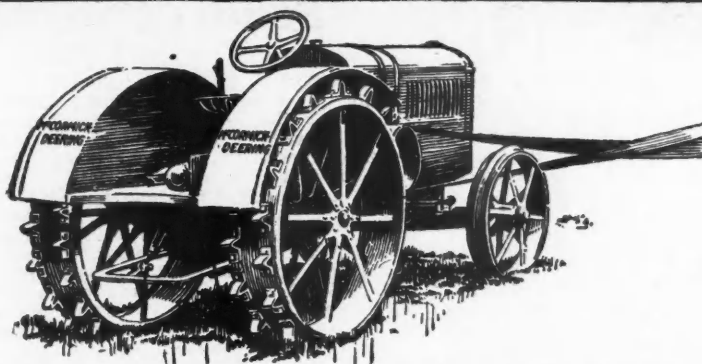
(Continued from page 13)

on any farm which, if they prove as successful as now indicated, will meet the needs of individual growers unable to avail themselves of the use of the larger machines. One such proposed device works on a gravity floating principle far simpler than any machine yet placed on the market. It can be built in any capacity and cannot possibly injure the fruit.

All Fruit to Be Cleaned

While the spray residue problem is by no means confined to western America (England having rejected fruit from her own colonies without favor), the Northwest has without question taken the lead in meeting the issue squarely by developing at once a practical solution. While scores of inquiries are arriving from fruit sections as far distant as South Africa, this section of the United States will put its \$50,000,000 to \$75,000,000 apple and pear crop on the market this year in a form to meet and even exceed all requirements.

Medford, the first to feel the force of the new order last year, is now taking the lead in applying the remedy. Every box of fruit shipped from there, it is announced, will be



Put a McCORMICK-DEERING at the POWER END of the BELT

THE belt-work season is here again. Now the belt will come into play on many jobs and you will want dependability at both ends of it. At one end the machines will change many times in a year, but the same tractor must stand steady and ready with plenty of power through it all.

Thresher, ensilage cutter, husker and shredder, feed grinder, hay press, wood saw, etc.—all are idle and helpless without power. The best of them are only as good as the power is. When the power is inadequate the machine is weak and inefficient. When the power is faulty, the job may be bungled, valuable time lost, and part of the crop value sacrificed.

Assurance of ample power and steady operation in belt work—as in all drawbar work and all power take-off work—lies in McCormick-Deering Tractor ownership. International Harvester tractor design has always given 100 per cent attention to the requirements for belt power. Study the 15-30, the 10-20, or the new Farmall, and you will see. Look at the big wide belt pulley; note its correct position, parallel with the wheels, ready for instant location in the belt. Note the throttle governor which keeps the speed uniform, saving fuel and saving wear. Set the tractor on a belt-work job and leave it—you can always depend on a McCormick-Deering to run unattended all day long.

INTERNATIONAL HARVESTER COMPANY

606 So. Michigan Ave. of America Chicago, Ill.
(Incorporated)

There is great and lasting satisfaction and pride of ownership in the standard farm power, the 4-cylinder tractors known the world over as McCormick-Deering. Your choice among these three quality tractors—15-30, 10-20, and the Farmall. See them at the dealer's store or write us for a catalog.



THRESHING



SILLO FILLING



SHREDDING



GRINDING



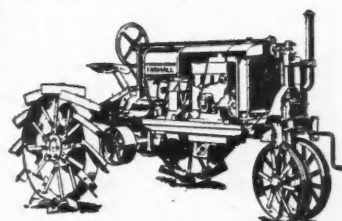
SAWING



SHELLING



BALING



The Farmall is the new all-purpose McCormick-Deering, designed to handle planting and cultivating of corn, cotton, and other row crops along with all other power work. This view shows the belt pulley. Farmall is perfectly fitted for belt work.

cleaned beyond the most rigid requirement. Hood River has adopted a similar policy, while Wenatchee and other Washington districts are installing washers by the score.

And now from the market centers comes word that the washed fruit presents such an enhanced appearance that better returns may make up for the slight additional expense of conditioning. Thus, through a year of travail and dark discouragement there comes promise of better days for both fruit grower and consumer.

Refined Apple Juice

(Continued from page 15)

of your good stock. Yet a modest investment, as compared with your farm investment, will immediately place you in position to realize a good profit from your otherwise valueless product.

Build Your Trade Gradually

Your nearby towns are your best markets. Stock moderately with a uniformly good product; supply your retail grocers, soda fountains and in-

dividual consumers with single case lots until their demand develops into larger orders.

Talk with any of your soda fountain men as to the number of gallons of various concoctions they require daily, then consider your own prospects in stepping into the market with nature's drink, unequalled by any of the manufactured articles on the market, and you will realize that you have been overlooking the most profitable part of your business. You will realize that the city manufacturer of synthetic beverages has been using your market right under your nose for years and years, while you have been laboring under the delusion that there were too many apples.

The writer has no connection whatever with any manufacturing plant offering equipment for sale, and he writes this article only in the hope that it will enthrall some growers, or growers' organizations, to the point of marketing the portion of their crop that should go in juice form in the proper manner. They will thereby better the quality of stock going onto the market in the fresh state and in

a measure relieve the congestion at harvesting time.

By experience, I know that all the apples go to market, so long as wages can be had for the harvesting, and that the big volume of ordinary stock flooding the markets at picking time is the cause of unreasonably low prices. It's the much talked of "surplus problem." Let's turn our surplus into an asset instead of a liability.

ORCHARD HEATERS saved the crop of the Laurel Orchard Company at Laurel, Ind., even though the temperature dropped to 21 degrees Fahrenheit outside the heated area. Seventy heaters were used to the acre in the lowest and coldest section, 52 in a section a little higher up and 35 on the highest ground. The 70 pots on the lower ground saved the blossoms, the 52 saved about 40 per cent and the 35 on the upper level failed to prevent severe damage. When 70 pots to the acre were used, there were four to each tree; when 52 were used, there were three to the tree; and 35 per acre allowed two pots to each tree. Coke was used for fuel.

Pipe Smoker Finds Price Does Not Determine Tobacco Satisfaction

Starting with expensive tobaccos he finally came down to one that is now his favorite

Apparently in selecting a certain tobacco, smokers suspend the rule: "The more you pay, the better you'll like it."

After all, satisfaction is a matter of taste, not of price. For that reason the quality and flavor of Edgeworth have never been changed. If you like Edgeworth today you will like it ten years from today—unless your taste changes.

Here is an interesting letter from a young man who shows signs of becoming a life member of the Edgeworth Club:

Chicago, Ill.
February 17, 1927.

Larus & Bro. Co.
Richmond, Va.
Gentlemen:

I'm just a young man—less than thirty. About five years ago I switched from cigarettes to a pipe. Why? Because I found that a pipe required the least attention and also interrupted me in my work the least.

At first I only smoked the more expensive brands of tobacco. Then I tried the less expensive blends. I guess I tried them all. Finally I tried Edgeworth. I liked it at the start—and repeated, and repeated.

For the last four years I have smoked nothing but Edgeworth—except when I was unable to obtain it. And, whenever I couldn't get it and had to substitute, I was glad to return to Edgeworth as soon as possible. Now I smoke about two cans of Edgeworth every four days.

No other tobacco can take the place of Edgeworth in my pipe.

Sincerely,
Paul A. Johnston.

To those who have never tried Edgeworth we make this offer:

Let us send you free samples of Edgeworth so that you may put it to the pipe test. If you like the samples, you'll like Edgeworth wherever you find it, for it never changes in quality.

Write your name and address

to Larus & Brother Company, 13 S. 21st Street, Richmond, Va.

We'll be grateful for the name and address of your tobacco dealer, too, if you care to add them.

Edgeworth is sold in various sizes to suit the needs and means of all purchasers. Both Edgeworth Plug Slice and Edgeworth Ready-Rubbed are packed in small, pocket-size packages, in handsome humidor holding a pound, and also in several handy in-between sizes.

To Retail Tobacco Merchants: If your jobber cannot supply you with Edgeworth, Larus & Brother Company will gladly send you prepaid by parcel post a one- or two-dozen carton of any size of Edgeworth Plug Slice or Edgeworth Ready-Rubbed for the same price you would pay the jobber.

On your radio—tune in on WRVA, Richmond, Va.—the Edgeworth station. Wave length [254.1 meters], 1180 kilocycles.



and Jaurez, who are compared with our Washington and Lincoln.

The streets of practically all the towns, except parts of Mexico City, present an odd contrast to our own. The driveways are narrow and rough. The houses are built solidly together and directly to the sidewalk line. There are no trees whatsoever on the sidewalks or in front of the houses. Many houses have no windows, and those that do have windows have iron bars over them in many cases. This condition, I was told, is the result of a desire to protect the homes against thievery. However, if the front of the houses present an uninviting appearance, this cannot be said of the back yards. Most of them are surrounded by walls in the cities, and in the open country, cactus fences and fences of rough stone or adobe surround them. It is in these back yards that the people live. The love of flowers is very striking all over Mexico, and they are found in practically every peon home and back yard.

The noon-day siesta is observed throughout Mexico. Everybody rests from noon until 3:00 P. M., or from 12 to 15 o'clock in Mexican time. During this interval, all business houses in the cities are closed.

Sometimes Expressed in Queer Ways

Sometimes the love of art of the Mexicans expresses itself in odd ways. They have a feeling that outward appearances play an important part. Among the leaders, the idea prevails that other nations will judge Mexico by its theaters, museums, government buildings, etc. As a result of this feeling, a national theater was started in Mexico City a number of years ago. To date, \$30,000,000 have been spent on it, and it is far from being complete. It occupies a whole city block. A \$90,000 curtain, purchased in New York, is in place, though the floor is as yet unfinished, and the yard around the building is strewn with cut stones. What is still more striking, the entire building has already sunk 12 feet because of its weight, for Mexico City, as I explained in the last article, is built in the bed of a former lake and the land is quite soft and of great depth. The enormous cathedral, built in 1525 on the site of the old Aztec temple, is said to stand on the only solid spot of round in the city. A great many of the heavier buildings of the city have cracked, and others have settled themselves out of shape. The Mines Building, for instance, is about a block long, and it is bowed in the middle like a rowboat.

In keeping with this same trait, the people expect their officials to present a good appearance. Luis Leon, secretary of agriculture at the time of our visit, met us at the agricultural college at Celaya in a special car elaborately fitted out, and he also had a second car which carried two Lincoln automobiles. The president travels in an entire special train, and just recently this train has been replaced by a new one purchased in the United States, which is said to be most elaborately equipped. Although the peons are already pinched by abject poverty, they seem to offer no objection to such things. One wonders if it would not be better to dispense with some of these things in view of their impracticability and their expense and to devote the money to more worth while purposes.

The American Influence

The Mexicans are easy going folks and are not quickly influenced to take up new things. As I pointed out in the last article, many primitive methods are still in use. Lack of education and extreme poverty are no doubt largely responsible for this state of affairs. Ignorance has kept them from developing a broad viewpoint, and poverty has prevented them from taking advantage of improvements they might have wished to make.

While Mexico has rather steadfastly clung to its old customs, outside influences have played an important part in the country's development. The

South of the Rio Grande

(Continued from page 7)

American influence is especially marked, especially from an economic standpoint. American and English capital built the railroads. Most of the railroad equipment is of American manufacture. All of the automobiles, tractors and farm implements are of American make. Numerous articles of all kinds from the United States are sold in Mexico. American capital is responsible in large part for the development of the mines, and it is also largely responsible for the oil industry. Practically all large engineering contracts, especially on irrigation projects, are carried out by American engineers. About \$1,400,000,000 of American money is invested in Mexican enterprises, according to one authority.

Natural Ability Shown in Many Ways

The Mexicans show natural ability in many ways. I have already described the great dexterity of the boy and man who were weaving a fine quality of rope by primitive methods. The irrigation ditches are laid out with great exactness as to direction and slope, and the crops are planted in very straight rows. I saw numerous haystacks that were perfect works of art. No American haystack I have ever seen would begin to compare with them. In many places, Mexican women offered for sale laces, pottery and other things that were marvelous pieces of work. This was especially true at Aguascalientes, the center of the lace, rug and drawn work industry. No finer work can be found anywhere, and yet it was being sold at ruinously low prices. Some of the women, too poor to buy linen, had largely wasted days and days of time making the most elaborate pieces of drawn work out of cotton cloth. The same dexterity is shown in numerous ways throughout Mexico. No people with such ability can be mentally incapable.

Strong Sense of Humor

The Mexicans have a strong sense of humor. They are quick to recognize and appreciate a good joke. Apparently, we Americans furnished them some amusement, for we often saw them laughing, always good naturedly, among themselves while they were observing us. One day Frank A. Briggs of Farm and Ranch, Paul Talbot of the Corn Belt Farmer, and I were walking through a market in Aguascalientes. A butcher was grinding sausage. Paul began to yelp. A small boy standing near caught the suggestion instantly, and he got one of the heartiest laughs out of it I ever saw a youngster get. Numerous instances of this strong sense of humor were noted.

Morals are not high in Mexico. In many cases peon men and women are living together without having gone through the process of marriage. This condition is said to have had its origin years ago during the heydays of the church, when marriage taxes and tributes were quite high and caused many to ignore the marriage ceremony to avoid the taxes. The examples set by some of the ruling classes and by foreign priests are said to have had their influence also. Even today stories of immorality on the part of officials are not at all uncommon. The government is at present encouraging the unmarried fathers and mothers to go through the marriage ceremony.

Religious Instinct Strong

The religious instinct is very deep-seated among the Mexicans. It goes back, no doubt, to the days of the Aztecs when idols were worshipped and when human sacrifices were offered up to the gods. Mysticism and display have always played a large part in Mexican religion. This accounts, no doubt, for the comparative ease with which the Spaniards converted the Aztecs over to their religion. Instead of images and sacrifices, they were able to offer them elaborate cathedrals, altars, confessions, etc. Of course, it must be recognized that more or less force was used by the

Spaniards in their conversion methods.

The courtship methods that are still in use in many places are extremely interesting. A young man must be in earnest when he courts a girl. He must have serious intentions of marriage the first time he calls on her, and he must obtain in advance her parents' permission to call. The second time he calls he is supposed to be engaged. A young man who violates these "common laws" is likely to be severely dealt with. The young man does not hide himself away with the girl in a dark corner as in the United States. Instead, he must court her through a window. We saw several instances in which young men, usually gaily dressed, were courting their favored ones through the iron bars which covered the windows. This custom, however, is becoming obsolete. One American whom I met at El Manuel said he married a Mexican girl and that though he could not talk Spanish and she could not talk English, he succeeded in making his intentions known, and he courted her and married her in the regular American way.

The National Pastime

The national pastime of the Mexican people is bull fighting. This custom cannot, of course, be blamed on the Aztecs, for it was introduced by the Spaniards. However, the Aztecs and mixed bloods seem to be supporting the game as much as anyone else. Out of curiosity and partly because I wished to be able to say that I had seen a bull fight, I attended one of these fights at the great bull pen in the City of Mexico. It was a most gruesome affair and so disgusting that I was glad to leave when one animal had been slain. The fight I saw was in reality worse than a real bull fight in some ways, for it was a take-off on a bull fight and poor heifers instead of bulls were used. The matadors were trying to imitate Charley Chaplin in dress and in action, and instead of giving an exhibition of expert fighting, they bungled their long drawn-out performance in apparently every way possible and thus added greatly to the suffering of the poor animal. The spectators, however, seemed to be unconcerned about this and were even able to laugh when the unfortunate animal, as the result of a fake stab, ran around the ring with a sword stuck half way into her shoulder. Finally, three or four men caught her and after some more by-play she was felled by a stab with a short knife just back of the horns. A chain was then fastened around her horns and she was dragged from the ring by a team of mules. Fortunately, the interest in bull fighting is subsiding. The crowds are not so large as formerly. Such wholesome games as baseball and tennis are gaining rapidly at the expense of bull fighting. Some of the better elements hope that in no long time bull fighting will be a thing of the past.

In the next article I shall describe the conditions leading up to the present state of affairs in Mexico, and following that I shall attempt to describe the program which the Mexican government is carrying out in an effort to put Mexico and its people in their rightful places in world affairs.

Red Spider Damages Strawberries

THE RED SPIDER caused a loss of about one-half the second crop of strawberries in the Inglewood and Hawthorne districts of California, according to President Anzai of the Japanese Berry Growers' Association. The spider attacks the under sides of the leaves, and it has been impossible to date to control it without affecting the fruit. Spraying has not brought satisfactory results. In most cases, it has damaged the plants and affected the appearance of the berries so that they sold for about 75 cents a crate less than unsprayed berries.

ANDY MOE Fruit Cleaners do the job



AMERICAN FRUIT GROWERS PACKING HOUSE AT WENATCHEE, WASHINGTON

"In this house we use twelve Moe Wipers and it has been our experience during the past season that the Moe is the best commercial wiper on the market. We might state further that we operated eight packing houses in the Wenatchee District and in each house the Moe Wipers were used exclusively."

FRUIT CLEANING is an established necessity. Consumers and buyers demand clean, bright, luscious-looking fruit—so attractive that its very appearance is a strong selling point. Andy Moe Fruit Cleaners clean fruit quickly, thoroughly and very carefully. The most delicate fruits, such as tender pears and peaches, are handled by Andy Moe Cleaners without the slightest bruising.

Andy Moe Fruit Cleaners are standard equipment in the fruit

packing industry. Practically all of the large packing plants throughout the West use Andy Moe Cleaners. These installations total many hundreds of Andy Moe machines—more than all other makes combined.

The enterprises shown on this page are typical of the high type of successful concerns that use Andy Moe, and who are generous in praising it.

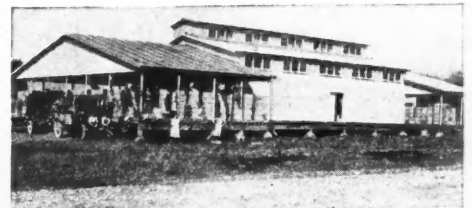
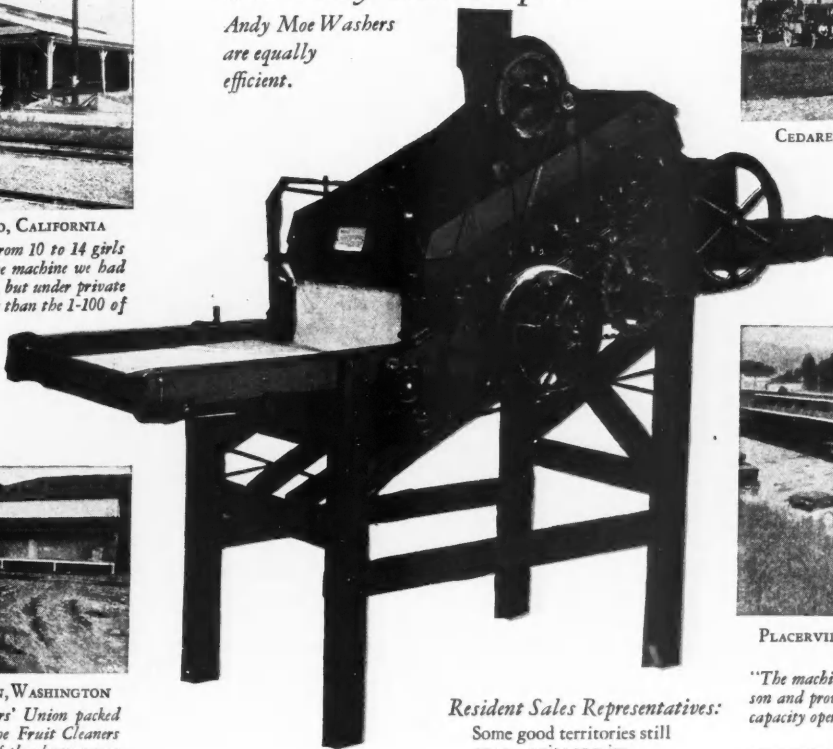


A. B. HUMPHREY PLANT AT SACRAMENTO, CALIFORNIA

"Previous to installing the machine we had from 10 to 14 girls wiping the fruit by hand. After installing the machine we had no further inspection by the federal authorities, but under private tests made for us the pears showed less arsenic than the 1-100 of a grain per pound allowed."

The Andy Moe Wiper.

Andy Moe Washers
are equally
efficient.



CEDAREIDGE FRUIT COMPANY, CEDAREIDGE, COLORADO

"Of the half dozen or so fruit cleaners employed in this section last fall we felt that none compared in economy or in any other way with the Moe. Our output last year was over 100 cars of apples, almost all of which were put through the Moe Cleaner."



OKANOGAN GROWERS' UNION, OKANOGAN, WASHINGTON

"During the 1926 season the Okanogan Growers' Union packed over 200,000 boxes of apples. Five Andy Moe Fruit Cleaners were used to clean the entire pack. The work of the cleaners was satisfactory in every way."



PLACERVILLE FRUIT GROWERS' ASSOCIATION PLANT AT PLACERVILLE, CALIFORNIA

"The machines were used by this company during the 1926 season and proved very satisfactory. A very heavy crop forced full-capacity operation, but breakdowns and delays were negligible."

Resident Sales Representatives:
Some good territories still
open—write or wire.

Andy Moe Fruit Cleaners will save money and labor for you. Tell us what your 1927 crop will be and we will send you full information concerning the Andy Moe Fruit Cleaners, adapted to your particular needs. Mail the coupon, or write today.

MOE IRON WORKS, TOPPENISH, WASHINGTON

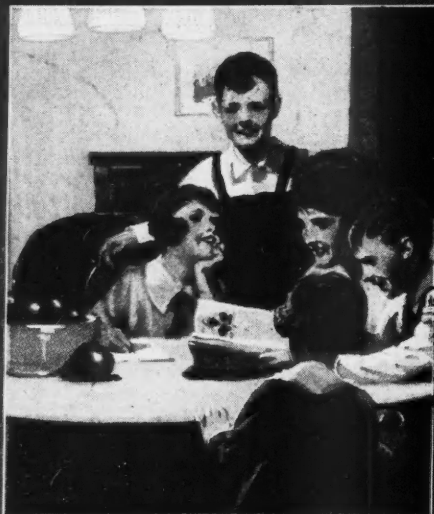
ANDY MOE fruit cleaners

W I P E R S , , , , W A S H E R S

MOE IRON WORKS, Toppenish, Washington
Please send full information regarding Andy Moe
Fruit Cleaners.

We pack about.....boxes apples
.....boxes pears
.....boxes

Name.....
Address.....



ELECTRIC LIGHT
UNFAILING — CONVENIENT
BRIGHT — CHEERFUL



RUNNING WATER
AT THE TURN OF A TAP
— UNDER PRESSURE



FRIGIDAIRE
ELECTRIC REFRIGERATION
COLD STORAGE TEMPERATURES
CONSTANT — AUTOMATIC

Enjoy Them All with DELCO-LIGHT

MAKE your home as up-to-date as anyone's—no matter where you live. Switch from lamps and lanterns to bright electric light. Change from pumps and buckets to nickel faucets and running water. And, in place of old, makeshift ways of keeping foods, have cold-storage refrigeration right in the kitchen with Frigidaire.

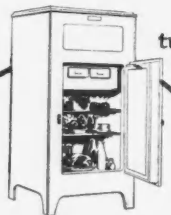
All these things are now within your reach—even though the nearest central station or high tension line is miles away.

Delco-Light Does It

All you need to do to make these wonderful advantages possible is to install a Delco-Light Electric Plant. The cost is low. Yet look what it gives you. A constant source of electric current for a thousand and one uses. Current for lights—unfailing, convenient electric light—light that's bright,

cheerful and restful to the eyes. No more bother with lamps or lanterns. No more fire hazard from open flames.

It gives you current for operating labor-saving household appliances—vacuum cleaners, washing machines, electric ironers. It gives you current for operating all small power machinery about the farm. It gives you current for operating a Frigidaire electric Refrigerator—for running a \mathcal{D} Water System.



Think of it. A genuine Frigidaire, with a factory price as low as \$195. This achievement is made possible by tremendous production and General Motors purchasing power. See this model at the nearest Frigidaire Salesroom. And ask for details of the General Motors convenient payment plan.

turn of a tap. Handy faucets in the bath room, kitchen and laundry will furnish water when ever you want it. And there will be plenty more for sprinkling the lawn and garden—for watering stock, and for all other uses around the place.

Frigidaire, Too

And whether you use central station service or Delco-Light as your power plant, you can now have Frigidaire Electric Refrigeration—refrigeration as endorsed by leading authorities throughout the United States.

All the Water You Need

Maybe you're now using central station electric current. Or perhaps you already have an electric plant. If so, a \mathcal{D} Water System will give you all the water you need—under pressure—at the

Frigidaire is now used in the finest country and city homes in America. It has won such overwhelming popularity that today more are in use than all other electric refrigerators combined. No wonder. It provides constant, cold storage temperature, day in and day out, without requiring a moment of your thought or attention.

And even the smallest Frigidaire freezes five pounds of ice cubes between meals. So you can have all the ice you want for cool summer drinks. And you can make all kinds of frozen salads and desserts in the Frigidaire freezing trays, where the temperature is always below freezing.

SENT FREE



Three Valuable Books

SENT FREE Mail coupon and get the facts about the three greatest time, money and labor-saving devices ever introduced for use on the farm—Delco-Light, \mathcal{D} Water Systems and Frigidaire. Each one is fully described in an interesting illustrated booklet that you'll enjoy reading. Any of these booklets—or all of them—will be sent free upon request. Simply put your name and address on the coupon and mail.

☐ DELCO-LIGHT COMPANY,
FRIGIDAIRE CORPORATION
Dept. E-400, Dayton, Ohio

☐ Send me free copies of the illustrated booklets as checked at the left.

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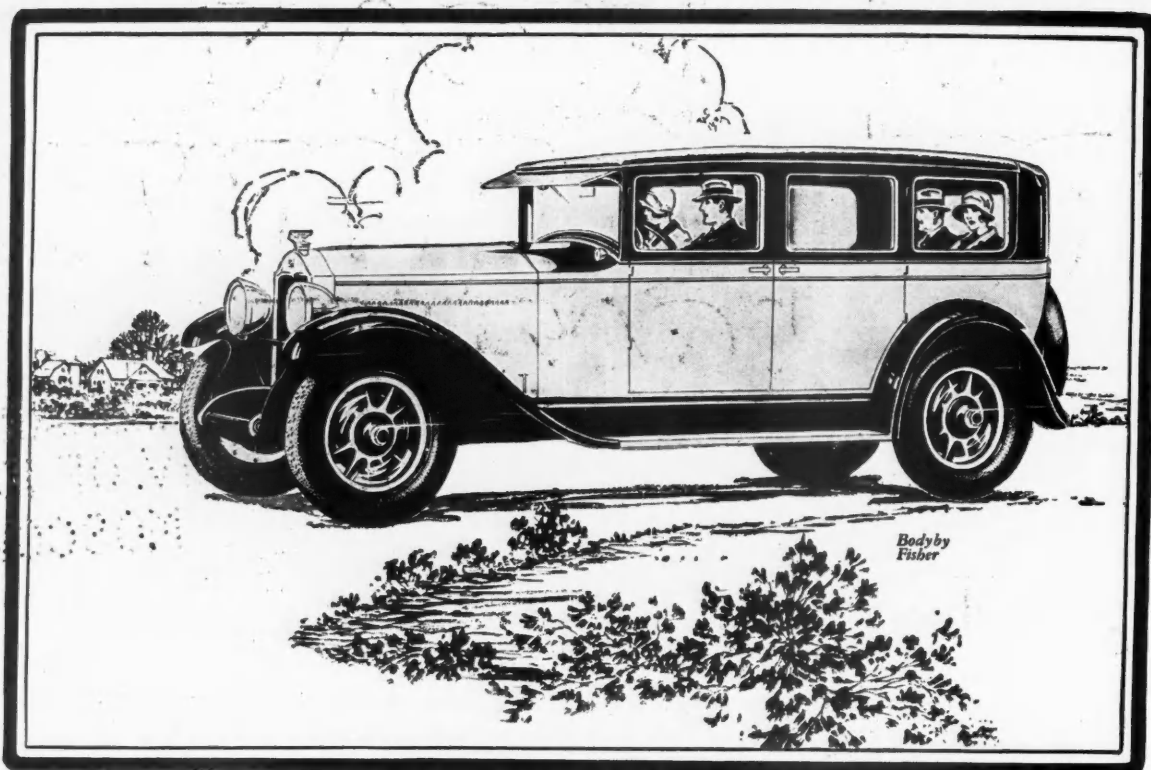
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